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Bürgi's "*Progress Tabulen*" (1620):
logarithmic tables without logarithms

Denis Roegel

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In 1620, Jost Bürgi, a clock and instrument maker at the court of the Holy Roman Emperor Ferdinand II in Prague, had printed (and perhaps published) a mathematical table which could be used as a means of simplifying calculations. This table, which appeared a short time after Napier’s table of logarithms, has often been viewed by historians of mathematics as an independent invention (or discovery) of logarithms. In this work, we examine the claims about Bürgi’s inventions, clarifying what we believe are a number of misunderstandings and historical inaccuracies, both on the notion of logarithm and on the contributions of Bürgi and Napier. We also briefly consider Bürgi’s construction of a sine table, as this is related to the construction of some tables of logarithms. Finally we give a new reconstruction of Bürgi’s progression tables.

1 The *prosthaphæresis*

Before coming to Bürgi’s table, we will describe the context of his work and in particular the method of *prosthaphæresis*.

As observed by Dreyer, the astronomer Tycho Brahe (1546–1601) was the first to make extensive use of trigonometry. In his unprinted manual of trigonometry, he expounded the *prosthaphæretic* method aimed at simplifying the complex trigonometric computations [34]. This method first appeared in print in 1588, in Nicolas Reimerus (Ursus)’ *Fundamentum astronomicum* [137]. It was of great value at the end of the sixteenth century, and was going to be a direct competitor to the method of logarithms.¹

The method of prosthaphæresis² had been devised by Johannes Werner (1468–1522)³ at the beginning of the 16th century and was likely brought to Tycho Brahe by the mathematician and astronomer Paul Wittich (ca. 1546–1586) in 1580 when the latter stayed at Uraniborg, Brahe’s observatory.⁴ This method was based on the two formulæ:

$$\begin{aligned}\sin A \sin B &= \frac{1}{2} [\cos(A - B) - \cos(A + B)], \\ \cos A \cos B &= \frac{1}{2} [\cos(A - B) + \cos(A + B)].\end{aligned}$$

With the help of a table of sines, these formulæ could be used to replace multiplications by additions and subtractions, something that Wittich found out, but that apparently Werner didn’t realize [161, p. 237]. To compute 2.577×6.131 , for instance, one could find values A and B such that $\sin A = 0.2577$, $\sin B = 0.6131$, and then use the first expression above to compute $\sin A \sin B$, and multiply the result by 100 in order to obtain the value of 2.577×6.131 .

¹For a comparison between teaching manuals using prosthaphæresis and those using logarithms, see Miura’s interesting article comparing Pitiscus’ and Norwood’s trigonometries [118].

²The name prosthaphæresis is constructed from the Greek words πρόσθεσις (addition) and ἀφαίρεσις (subtraction), see [101, p. 78], [179], [183, vol. 1, pp. 227–228], [168, vol. 1], and [26, pp. 454–455, 642–643].

³Some sources give Werner’s death in 1528, but this is apparently the result of a confusion with another Johann Werner, see [29, 44].

⁴Interestingly, it also seems that this method was brought to Napier by John Craig who obtained it from Wittich in Frankfurt at the end of the 1570s [55, pp. 11–12]. It has even been argued that Longomontanus had discovered logarithms and that Craig had brought their knowledge to Napier [23, p. 99–101].

Thanks to Brahe’s manual of trigonometry, the fame of the method of prosthaphæresis spread abroad and it was brought by Wittich to Kassel in 1584 [55, pp. 17,68]. This is probably how Jost Bürgi (1552–1632)—who was then an instrument maker working for the Landgrave of Kassel, learned of it.

Bürgi not only used this method, but even improved it. He found the second formula, for Brahe and Wittich only knew the first. In addition, he improved the computation of the spherical law of cosines, which is one of the laws used in spherical trigonometry:

$$\cos c = \cos a \cos b + \sin a \sin b \cos C$$

Using the method of prosthaphæresis, two of the products ($\cos a \cos b$ and $\sin a \sin b$) could be computed but two new multiplications were still left unsimplified and it was not clear that they could be replaced, especially since at that time equations were not written using the modern notation. Bürgi realized that the method of prosthaphæresis could be used a second time, and thus that all multiplications could be replaced by additions or subtractions.

In 1588, when Ursus published the method of prosthaphæresis, he did not give any sources.⁵ But he acknowledged his debt to Wittich and Bürgi in 1597 in his *De astronomi- cis hypothesibus* [138], [120, p. 180], [94, p. 317]. Once Ursus had published the method, it spread further and was improved by other mathematicians, in particular Clavius [157]. But some time after the invention of logarithms, the method fell in oblivion and the name prosthaphæresis even came to mean again an entirely different notion, which it originally had [35, p. 361], namely the equation of centre, that is the difference between the true and the mean motion of a planet.⁶

2 Jost Bürgi

Jost Bürgi⁷ was born in Lichtensteig, Switzerland, in 1552. Very little is known of his early education⁸ and some authors have theorized that he must have taken a part in the construction of the astronomical clock in Strasbourg between 1571 and 1574, since this clock was built by the Swiss clockmakers Habrecht.⁹ There is however no proof of this assertion. All that is known is that he was hired as court clockmaker by the Landgrave Wilhelm IV of Hessen at Kassel in 1579. The passage through Strasbourg would explain Bürgi’s knowledge in astronomical mechanisms, and the fact that Wilhelm IV had been

⁵This was not the most serious problem of the book. In fact, Ursus also expounded a geo-heliocentric theory which was almost identical to that of Brahe. This caused a long feud between Tycho Brahe and Ursus. For a very detailed account, see Jardine *et al.*’s *Tycho v. Ursus* [73, 72] and Jardine and Segonds’ *La guerre des astronomes* [74]. It should also be noted that Ursus defended a number of original theses in his work, see for instance McColley’s study [115].

⁶In fact, one might even distinguish the “equation of centre” from the difference between the true and mean anomaly, see the article “Prostapherese” in the *Encyclopédie* [135]. A contemporary example of such a use of the prosthaphæresis is found in Wright’s *Certaines erreurs in navigation* published in 1599 and 1610 [184].

⁷On the correct spelling of Bürgi’s name, see Wolf [179, pp. 7–8], [181], [182].

⁸A few elements on his family can be found in Müller’s study [122].

⁹Rudolf Wolf seems to have been the first to suggest this connection in his *Geschichte der Astronomie* [180, pp. 273–274]. Later, Voellmy [164, p. 6] and others took it for granted.

student in Strasbourg in the 1540s may have created a connection. These, however, are mere possibilities.

What is certain is that Bürgi was a very talented instrument maker who built sophisticated clocks and globes, of which a number survive [166, 99]. He also made astronomical observations and did important work in mathematics.

Bürgi was highly esteemed by Wilhelm who wrote in 1586 in a mixture of German and Latin: “...unser Uhrmachers M. Just [Bürgi], *qui quasi indagine alter Archimedes ist*”¹⁰ [10, p. 21]. In 1597, in a letter to Kepler, Ursus wrote that Bürgi was on the “same level as Archimedes and Euclides” [177, p. 58].

In 1603, Bürgi was called to the imperial court in Prague [112, p.89]. There he also received the praise of Kepler who wrote that Bürgi would sometime be as famous in his art as Dürer is in painting [83, p. 769], [1, p. 15]. Although this has not turned out for mathematics, it is definitely the case for clockmaking.

3 Bürgi’s sine table

The use of the prosthaphæretic method required a table of sines. This is likely the reason why Bürgi constructed a *Canon sinuum*, or a new sine table, probably at the end of the 1590s. A lost note seen by Wolf [179, p. 8] seems to indicate that the sine table has been completed in 1598, assuming Wolf misread 1588 for 1598. Unfortunately, this table was never published and got lost.¹¹ Bürgi himself seems to have been reluctant at publishing it and in 1592, Brahe wrote that he did not understand why he was keeping the table hidden, after he had allowed a look at it. This seems to indicate that at least some part of the table of sines had been computed by then [10, p. 268], [99, p. 22].

In any case, there remains Bürgi’s “Coss,” a manuscript explaining Bürgi’s algebra and giving some elements on the construction of the *Canon*. This manuscript is only known through a copy made by Kepler [145, p. 207]. That the table has really existed seems proven by several observations, including those of Bramer [101, pp. 112–113].

Bürgi’s *Canon sinuum* contained the sines to 8 places at intervals of 2′. Rheticus’ *Opus palatinum* (1596), the only other comparable work, gave the sines (and other trigonometric lines) to 10 places at intervals of 10′ [139]. It is however far from certain that Bürgi’s table was as accurate as some people claim. Even if the sines were tabulated every 2′, it is likely that they were only correct to five or six decimal places.

Unfortunately, Bürgi’s procedure for the computation of the canon is not totally clear. He seems to have computed the values of the sines for each degree of the quadrant and the value of $\sin 2''$ by repeated bisection, trisection and quinquisection of arcs.^{12,13} Other

¹⁰“(...) our clockmaker Jost Bürgi, who is almost on the way of another Archimedes.”

¹¹The publication of Rheticus’ *Opus palatinum* in 1596 [139], and then of Pitiscus’ *Thesaurus mathematicus* in 1613 [134] are certainly the main reasons explaining why Bürgi’s tables were never published, and perhaps even never completed, even if some witnesses may have seen parts of the tables.

¹²Bürgi used a method for solving equations analogous to that of Viète, later improved by Newton. Interestingly, the literature mentions a “Birge-Vieta” method for finding roots of certain functions, and this is actually a variant of Newton-Raphson’s method published by Raymond Thayer Birge (1887–1980) in 1942 (“The Birge-Vieta Method of Finding Real Roots of Rational Integral Function.” Marchant Calculating Machine Company, report MM-225, August 1942).

¹³For details on Bürgi’s method, see List and Bialas [101], [183, vol. 1, pp. 86–87, 169–175], [26, pp. 643–646].

values were obtained by interpolation using differences [101], [168, vol. 1], [179]. Bürgi mentions several methods, of which we consider two.

3.1 Bürgi's first method

List and Bialas have suggested that Bürgi's interpolation scheme was similar or identical to the quinquisection used by Briggs (which is a special case of Newton's forward difference formula), but it is a mere hypothesis, and Bürgi never writes that he used quinquisection when using differences [101, 130]. Moreover, if quinquisection was used, it would have required to compute the sines every $10''$, which is a huge work, given that Bürgi did not use Rheticus' work. Finally, as we have shown, if quinquisection is not applied properly, it can introduce larger errors than those caused by Briggs' method [141].

3.2 Bürgi's second method

Bürgi gives a second method in his manuscript [101, p. 77], and although it was not explicitated by List and Bialas, it seems actually relatively straightforward. Bürgi's idea is again to start with the values of the sines for every degree, and with the value of $\sin 2''$. Then, he considers the following approximations:

$$\begin{aligned}\sin 30'32'' - \sin 30'30'' &\approx \sin 30'30'' - \sin 30'28'' \approx \frac{\sin 1^\circ - \sin 0^\circ}{1800} \\ \sin 1^\circ30'02'' - \sin 1^\circ30' &\approx \sin 1^\circ30' - \sin 0^\circ29'58'' \approx \frac{\sin 2^\circ - \sin 1^\circ}{1800} \\ \sin 2^\circ30'02'' - \sin 2^\circ30' &\approx \sin 2^\circ30' - \sin 2^\circ29'58'' \approx \frac{\sin 3^\circ - \sin 2^\circ}{1800}\end{aligned}$$

and so on.

Bürgi apparently also computes the differences for the degrees, apparently averaging ("halbir die summan") the previous differences:

$$\begin{aligned}\sin 1^\circ0'2'' - \sin 1^\circ &\approx \sin 1^\circ0' - \sin 0^\circ59'58'' \\ &\approx \frac{(\sin 1^\circ30'02'' - \sin 1^\circ30') + (\sin 30'30'' - \sin 30'28'')}{2}\end{aligned}$$

Bürgi writes explicitly that the differences stand for 450 sines, and that there are 900 sines between degrees, but Bürgi's text seems to often mix chords and sines. We interpret his description as meaning that there are 1800 sines between each degree (hence every $2''$) and that there are twice as many differences. Once Bürgi has the differences, he can interpolate. This interpolation is of course not very accurate. For instance, Bürgi would have

$$\begin{aligned}\sin 2'' &= 0.0000096962\dots \\ \sin 30'2'' - \sin 30' &\approx 0.000009695781\dots \\ \sin 44^\circ &= 0.694658370\dots \\ \sin 44^\circ30'2'' - \sin 44^\circ30' &\approx 0.00000691578373\dots \\ \sin 43^\circ30'2'' - \sin 43^\circ30' &\approx 0.00000703333910\dots \\ \sin 44^\circ2'' - \sin 44^\circ &\approx 0.0000069745614\dots\end{aligned}$$

Then

$$\begin{aligned}\sin 45' &\approx \sin 0 + 900 \sin 2'' + 450(\sin 30'2'' - \sin 30') = .0130897477, \\ \sin 44^\circ 30' &\approx 0.694658370 + 900 \times 0.0000069745614 = 0.70093547526,\end{aligned}$$

whereas the exact values are 0.01308959... and 0.70090926429....

Bürgi's second algorithm gives the sines to 4 or 5 places.

Oechslin has also analyzed this algorithm, but he seems to have misunderstood it and distorted Bürgi's words [130, pp. 89–92]. Oechslin's algorithm is yet another algorithm, in which the basic principle is averaging neighboring differences. But Bürgi makes it very clear that his method is dispensing with the multiple differences, and he really considers only one level of differences, whose values are obtained by one or two means.

3.3 What Bürgi might have done

When we consider using differences, it seems that we tend to compare contemporary methods. For instance, a parallel has been drawn above between Bürgi's method and that of Briggs. But in fact, Bürgi's method could have been of a very different nature. Another possibility should be considered, and it is surprising that apparently no one has suggested it. We suggest that Bürgi may have applied the principles used 200 years later in Prony's *Tables du cadastre*, where large tables of logarithms and trigonometric functions were computed by purely mechanical means [144]. Some features of the *Tables du cadastre* were totally at reach of Bürgi, and do not require any advanced mathematics. The idea is to compute the differences for pivots, for instance every degree, and interpolate using these differences.

$$\begin{array}{cccccc} y & \delta y & \delta^2 y & \delta^3 y & \dots & \\ y' & & & & & \\ y'' & & & & & \\ y''' & & & & & \\ \dots & \dots & \dots & \dots & \dots & \end{array}$$

Bürgi writes that the sines are computed every degree with one more place than the final result [101, p. 76]. He then computed the first, second, third, and fourth differences. But if he took the approximations

$$\begin{aligned}\delta y &\approx \frac{\delta a}{5} & \delta^2 y &\approx \frac{\delta^2 a}{25} \\ \delta^3 y &\approx \frac{\delta^3 a}{125} & &\dots\end{aligned}$$

where δa , $\delta^2 a$, etc., are the differences for an interval of one degree, his interpolation would have been very bad. Instead, he should compute the values of δy , $\delta y'$, etc., exactly.

In principle, only the first row is computed in advance, and row $n + 1$ is computed from row n , by adding the differences. In order to compute the initial differences, Prony had analytic expressions for these differences, but these are not strictly necessary. In

order to compute d differences at some point, it is sufficient to compute exactly d sines after the one of the pivot:

$$\begin{aligned}\delta y &= y' - y \\ \delta y' &= y'' - y' \\ \delta y'' &= y''' - y'' \\ \delta^2 y &= \delta y' - \delta y \\ \delta^2 y' &= \delta y'' - \delta y' \\ \delta^3 y &= \delta^2 y' - \delta^2 y \\ &\dots\dots\end{aligned}$$

Bürgi must have computed the pivots by bisection, trisection and quintisection of arcs. Knowing $\sin y$, he may also have computed $\cos y$. Then, he also had computed $\sin \delta a$, where $\delta a = 2''$. From $\sin \delta a$, Bürgi may have computed $\cos \delta a$. Finally, Bürgi could compute the next sine value with

$$\sin y' = \sin(y + \delta a) = \sin y \cos \delta a + \cos y \sin \delta a$$

In order to compute $\sin y''$, Bürgi would have needed to compute $\cos y'$ from $\sin y'$. And similarly when computing $\sin y'''$ or further values. Then, Bürgi would have been able to compute the pivots, and to interpolate. A further problem is to decide on the number of differences, the number of decimals and on the interval, but this method might well have been the one that Bürgi used, and decided to conceal.

4 Bürgi's "Progress Tabulen"

4.1 The motivation

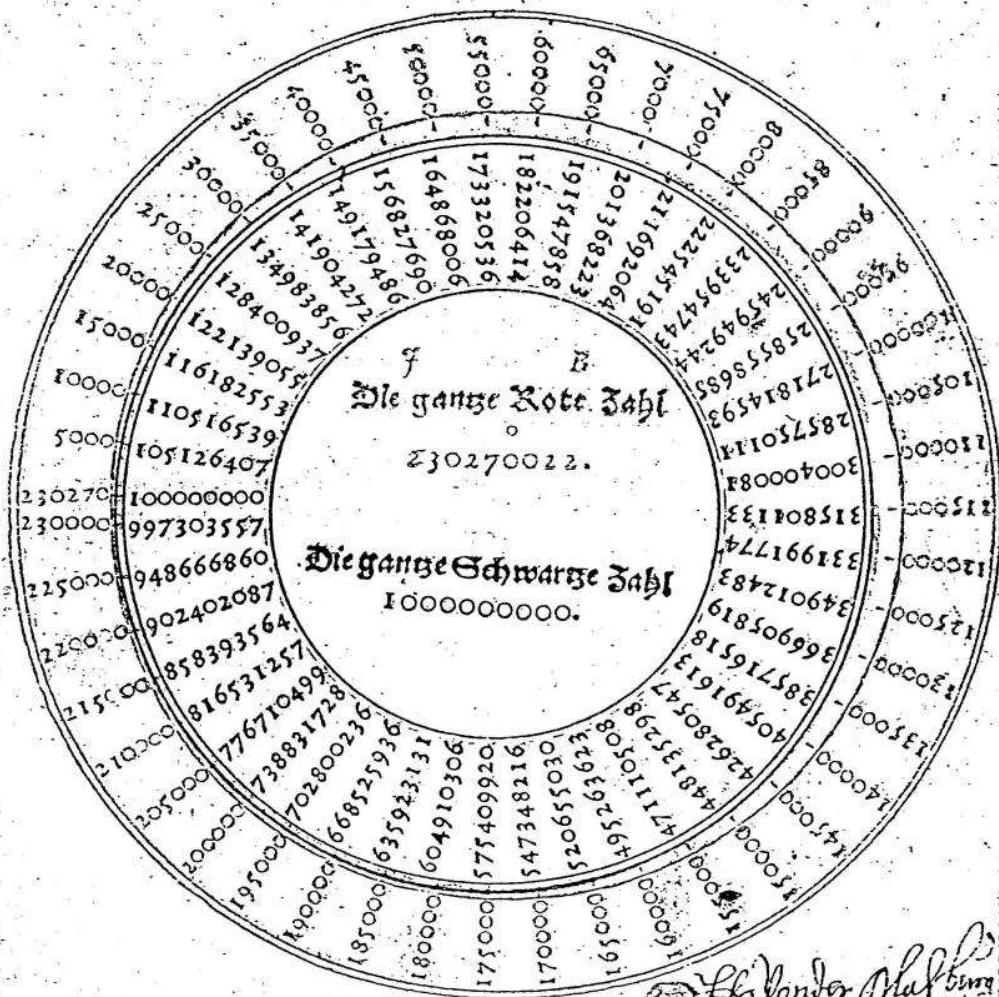
The prosthaphæretic method was much more efficient than direct multiplication, but it still required three additions/subtractions and one division by 2. The method was also inconvenient because it required addition and subtraction of sexagesimal angles, and because powers of a number could not be computed by a mere multiplication. Bürgi must have been searching for an even better method and he devised one based on general progression tables. In his introduction to the tables, he mentions Simon Jacob¹⁴ (?–1564) and Moritius Zons who had described some properties of progressions [53, p. 27] [54, p. 321]. Bürgi's tables were probably conceived around 1605–1610, after he had finished his work on sines.¹⁵

¹⁴Tropfke writes that Jacob almost copies word for word Stifel's description of progressions [162, p. 145].

¹⁵Some authors believe that Bürgi may have started to work on his *Progress Tabulen* as early as 1588, but this seems wishful thinking. All we know is that Ursus mentioned in 1588 that Bürgi had a means to simplify computations (Ursus [137], cited through Lutstorf [105, p. 1]), by which the computation of the sine table must have been meant, since this computation is also implicitly present in Ursus' book [137, f. 9]. In 1627, in the Rudolphine tables, Kepler wrote that Bürgi had found his logarithms many years before Napier (*Apices logistici Justo Byrgio multis annis ante editionem Neperianam viam praeiverunt*

Aritmetische und Geometrische Progress

Takulen/sampt gründlichem vnterricht/wie solche nützlich
in allerley Rechnungen zugebrauchen/vnd verstanden werden sol.



Gedruckt/ In der Alten Stadt Prag/ bey Paul

Essen/der Eöblichen Univerſitet Buchdruckern/ Im Jahr / 1620.

Figure 1: Cover of Bürgi's tables (source: [105]). The values in the outer ring as well as in the upper half of the inner circle are in red color. The initials J(ost) B(ürgi) appear in the middle. The fact that the circles are not concentric is certainly a printing error and was mentioned by Kästner in 1786 [76, p. 95].

In the introduction to the *Progress Tabulen*, only published in 1856, Bürgi explains that various tables were available for specific purposes, for instance for multiplication, for division, for the extraction of roots, and so on, but that his purpose was to build a general table [53, 54].

In order to explain the principles of his *Progress Tabulen*, Bürgi considers the following simple correspondence between an arithmetical and a geometrical progression:

0	1	2	3	4	5	...	12
1	2	4	8	16	32	...	4096

In order for instance to compute 4×8 , we can look up these numbers in the second line, find the corresponding values in the first line (2 and 3), *add* them (5) and look up the corresponding value in the second line, which is 32, the result sought.

Stifel, in his *Arithmetica integra* (1544), had already considered the following correspondence:

−3	−2	−1	0	1	2	3	4	5	6
$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	1	2	4	8	16	32	64

and observed for instance that the multiplication of the second progression corresponds to addition in the first:¹⁶ $\frac{1}{8}$ corresponds to -3 , 64 corresponds to 6, and their product 8 corresponds to $3 = -3 + 6$ [158, ff. 249–250]. Stifel, Bürgi, and others had a notion of exponent, but they were still lacking the modern notation introduced in 1637 by Descartes in his *Géométrie* [32].

Bürgi’s large table follows the same principles, only with a different ratio from one value to the next. In fact, as observed by Voellmy [164, p. 21] and Lutstorf [104, p. 106], Bürgi states that the properties of the above correspondence are shared by any pair of arithmetic and geometric progressions, if these progressions start with 0 and 1. And he adds that the “following tables” are also two such progressions.¹⁷

ad hos ipsissimos logarithmos) [85, p. 298], [125, p. 392], [30, p. 52]. Then, in 1630, Benjamin Bramer (1588–1652), Bürgi’s brother-in-law, mentioned that Bürgi’s tables had been computed more than 20 years before [11], that is before those of Napier [175, 60], hence our range 1605–1610. Montucla did recognize Bürgi’s merits, but Biot, in a 1835 review of Mark Napier’s memoir and republished in 1858, discarded Bürgi’s work altogether, apparently not aware of Montucla’s description, and even calling Bürgi “an obscure mathematician of the continent” [9, p. 410]. For Cantor, Bürgi’s tables were developed between 1603 and 1611, when Bramer was living in Prague with Bürgi [26, p. 729]. Cajori, for the Napier tercentenary celebration, wrote that Bürgi “published a table of logarithms in 1620” and considers the issues of priority, not questioning the discovery itself [23, p. 101]. Cajori takes over Cantor’s period for the computation of the tables. Cajori also considers the unfairness of some previous authors towards Bürgi [23, pp. 106–107] or Napier. Perhaps the extreme case of unfairness is that of Jacomy-Régnier who claims that Napier had his calculating machine made by Bürgi himself and that in return the shy Bürgi told him of his invention of logarithms [71, p. 53]. Recent authors have added their own interpretation of the events. Voellmy, for instance, in addition of asserting the year 1588 for Bürgi’s tables, claims that Napier’s work was still improved between 1614 and 1619 (which is false) and this is a contrived way to assert anteriority for Bürgi [164, p. 19]. Bell follows Cantor or Cajori [4, p. 162] and for Bruins, Bürgi started his tables in 1603 [15, p. 98] or in 1606 [16, p. 243] and completed them in 1610. For Mautz, Mackensen, and others, it is obvious that Bürgi invented logarithms before Napier [113, p. 3], [169, p. 28].

¹⁶On the history of these correspondences and the law of exponents, see Smith [156].

¹⁷The original text reads “...und dieße Eigenschafft haben nicht allein die 2 abgesetzten *Progressen* mit

	0	500	1000	1500	2000	2500	3000	3500	
0	100000000	100501227	101004966	101511230	102020032	102531384	103045299	103561795	
10	10000	11277	15667	21381	30234	41637	55603	72141	
20	20000	22554	31334	41762	54468	71674	92604	117381	
30	30000	33831	45271	58887	75641	95446	119316	147861	
40	40000	45133	58374	74184	92846	114202	141623	170322	
50	50000	56457	71437	87006	107052	131067	159683	193881	
60	60000	67803	82584	96158	113259	129918	1510714	173942	
70	70000	79171	91599	100691	1082309	11467	102603177	11745	34305
80	80000	90568	100656	108799	1161676	123438	12764	4466	
90	90000	102094	109174	116907	122627	11887	123699	138077	155033
100	100000	113749	120617	12287	122098	12098	133961	148391	165395
110	110000	125534	126127	127040	12210	12225	144225	158705	175764
120	120000	137359	130235	131111	12223	122489	160021	168137	186137
130	130000	149224	133352	134274	12238	122738	164755	179335	196501
140	140000	161129	136468	137478	12254	123053	170021	189656	206867
150	150000	173074	139584	140604	12269	123369	175757	199975	217241
160	160000	185059	142700	143770	12286	123686	181557	2032029	227613
170	170000	197084	145812	146938	12300	123970	187027	206616	237986
180	180000	209149	148930	150106	1231224	124097	192993	210031	248360
190	190000	221254	152045	153275	124045	124265	198961	213461	258734
200	200000	233399	155166	156444	124266	124434	204931	216885	269117
210	210000	245584	158283	159617	124438	124603	210902	220310	279507
220	220000	257809	161401	162790	124612	124772	216874	223737	289895
230	230000	270074	164520	165963	124786	124941	222847	227164	300281
240	240000	282379	167640	169136	124960	125110	228821	230591	310666
250	250000	294724	170760	172309	125133	125279	234796	234018	321051
260	260000	307109	173880	175482	125306	125448	240771	237445	331436
270	270000	319534	177000	178655	125479	125617	246746	240872	341821
280	280000	332009	180120	181828	125652	125786	252721	244299	352206
290	290000	344534	183240	185001	125825	125955	258696	247726	362591
300	300000	357109	186360	188174	126000	126124	264671	251153	372976
310	310000	369734	189480	191347	126173	126293	270646	254580	383361
320	320000	382409	192600	194520	126346	126462	276621	258007	393746
330	330000	395134	195720	197693	126519	126631	282596	261434	404131
340	340000	407909	198840	200866	126692	126800	288571	264861	414516
350	350000	420734	201960	204039	126865	126969	294546	268288	424901
360	360000	433609	205080	207212	127038	127138	300521	271715	435286
370	370000	446534	208200	210385	127211	127307	306496	275142	445671
380	380000	459509	211320	213558	127384	127476	312471	278569	456056
390	390000	472534	214440	216731	127557	127645	318446	282000	466441
400	400000	485609	217560	219904	127730	127814	324421	285431	476826
410	410000	498734	220680	223077	127903	127983	330396	288862	487211
420	420000	511909	223800	226250	128076	128152	336371	292293	497596
430	430000	525134	226920	229423	128249	128321	342346	295724	507981
440	440000	538409	230040	232596	128422	128490	348321	299155	518366
450	450000	551734	233160	235769	128595	128659	354296	302586	528751
460	460000	565109	236280	238942	128768	128828	360271	306017	539136
470	470000	578534	239400	242115	128941	128997	366246	309448	549521
480	480000	592009	242520	245288	129114	129166	372221	312879	559906
490	490000	605534	245640	248461	129287	129335	378196	316310	570291
500	500000	619109	248760	251634	129460	129504	384171	319741	580676

Figure 2: First page of Bürgi's tables (source: [105]).

4.2 Bürgi's correspondence

4.2.1 The construction

As stated earlier, in 1620 Bürgi had printed (and perhaps published) a table with a correspondence between two sequences, one arithmetical (in red), the other geometric (in black).^{18,19} The correspondence was the following:

red numbers	black numbers
0	10^8
10	$10^8 \left(1 + \frac{1}{10^4}\right)$
20	$10^8 \left(1 + \frac{1}{10^4}\right)^2$
...	...
n	$10^8 \left(1 + \frac{1}{10^4}\right)^{\frac{n}{10}}$

where all numbers were rounded to integers.

Let $b(x)$ be the black number corresponding to x , and $r(x)$ be the red number corresponding to x . We then have

$$b(x) = 10^8 (1.0001)^{\frac{x}{10}}$$

$$r(x) = 10 \left(\frac{\ln(x/10^8)}{\ln(1.0001)} \right)$$

and of course $b(r(x)) = x$.

Bürgi's tables were spanning 58 pages and a reconstruction of these tables is given at the end of this volume. They exhibit two interesting features, although Bürgi was not the first to use them. First, the tables are double-entry tables and anticipate later double-entry tables of logarithms.²⁰ The tables of Briggs, Vlacq, and others, were not

einander, sonder alle, sie sein, wie sie wollen, wenn der *Arithmetische* von 0 und der *Geometrische* von 1 anfanget, wie denn auch die folgenden *Tabulen* nichts anderß als 2 solcher *Progressen* sindt." (... and this property is not only a property of the two composed progressions with eachother, but all those, whichever they are, in which the arithmetical progression starts with 0 and the geometrical with 1, and the following tables are nothing else as two such progressions.) [164, p. 21], [105, p. 27], [104, p. 106].

¹⁸The printing quality of the original tables is less than satisfactory, and many digits are illegible. There also appear to be slight alignment problems between the red and black numbers, as observed by Lutstorf [105, p. 3], and also before by Kästner [76, p. 95].

¹⁹To our knowledge, there are currently (2010) at least two copies of Bürgi's table, and they are located in Munich (Universitätsbibliothek München, call number 1603/R 1620-001), and in Graz (Hauptbibliothek SOSA, Guldin-Bibliothek, call number I 18601). The title page of the latter copy (which was part of Paulus Guldin's library) was reproduced in [152] and [64]. The (now) Munich copy was found by Kästner [76], and rediscovered by Wolf in 1847 [175], [177, p. 71]. Kästner found Bürgi's tables among various papers he bought when the books of Georg Moritz Lowitz (1722–1774) were auctioned in 1776 [76, p. 94]. Lowitz had bought the books of Johann Gabriel Doppelmayr (1677–1750), some of which were from Johann Christoph Sturm (1635–1703). Bürgi's tables may therefore have been acquired by Sturm or Doppelmayr, although nothing more is known about their origin. Kästner had initially not noticed Bürgi's tables, and the initials "I. B." made him think more of Jacob Bartsch, until Bramer's words [11] drew Kästner's attention to Bürgi. In 1877, Wolf mentioned copies in Gdansk, Göttingen and Munich [180, p. 349], but we do not know if a copy does still exist in Göttingen. There is or was a copy in Gdansk (Danzig), whose title page was reproduced by Voellmy [164]. This copy was found by Gronau in 1855, together with its handwritten introduction. In 1997, Faustmann mentioned a copy in the Vatican library, but this was an unverified claim which has not been confirmed [40, p. 121].

²⁰For a possible influence of this feature on other tables, in particular those of Kepler, see Tropfke [162, p. 158].

double-entry tables, but one reason for that may be the fact that the first tables of logarithms were heavily loaded with difference entries, which make it difficult to use double-entries. Bürgi's tables, instead, have no differences. A second interesting feature is the use of dots to replace repeated figures.²¹

Bürgi constructed this table until $n = 230270.022$ and the value of the black number²² was then $999999999 \approx 10^9$. He gave exactly 23032 correspondences.²³ His purpose was to cover a range of black numbers with a ratio of 10, such that the digits of every number could be found within the table. It is interesting to observe that whereas the black numbers are always integers (in our interpretation), the red numbers start as multiples of 10, but end up being fractionary. Some authors have considered that the step of 10 in the red numbers is reminiscent of the step of $10'$ or $10''$ in some trigonometric tables, but I think this is a very contrived explanation. It seems much more likely that Bürgi had anticipated that by the end of his table, he would need to add at least one significant digit to the red numbers for the last interpolation, and it was probably only when his work was very advanced that he noticed that he could actually find even more digits for $r(1000000000)$.

4.2.2 The errors in Bürgi's tables

Bürgi's geometric progression seems rather simple to compute. At first sight, given a value n of 9 digits, the next value n' is obtained as $n' = 1.0001 \times n = n + \frac{n}{10000}$, or n added to n shifted by four digits to the right. Bruins [16, p. 244] estimated that this work would take about 170 hours. Mackensen estimated that it would take a few months [169, p. 29]. But in fact, it probably took longer, because care had to be taken that the values were accurate.

Waldvogel was the first to investigate the accuracy of Bürgi's tables [170, 171, 172]. The tables appear not to contain any systematic errors. In particular, the last value of the red numbers is given as 23027.0022, whereas the exact value is 23027.0022032...

In order to check the accuracy of the table, Waldvogel has typed in the 23028 terminal digits (from the red numbers 0 to 230270) and checked the accuracy of the values, assuming that the error was at most a few units. The terminal digits were illegible in 182 cases. In 91.54% of the cases, the rounding was correct. In 7.29% of the cases, the error was only a rounding error. In 0.39% of the cases, the terminal digit was erroneous ($\Delta \geq 1$). Lutstorf had also observed that Bürgi's values were not always correctly rounded [105, p. 6].

Bürgi has most certainly computed the values in his table using guard digits. In other words, he must have added digits to the table values and only put in the table the rounded truncated values. For instance, with three guard digits, the *internal* value for $b(22620)$ is 125381222593, which when multiplied by 1.0001 and rounded gives 125393760715. This will be the *internal* value of $b(22630)$. But the black numbers derived from these internal values are respectively 125381223 and 125393761.

Waldvogel has compared Bürgi's values with recomputations using different numbers

²¹This feature may also have been borrowed by Kepler, see Tropfke [162, p. 159].

²²All explicit nine-digit "black numbers" will be written in a different font but this will not apply to any number derived from them.

²³Strangely, Montucla writes that Bürgi's table contained about 33000 logarithms [119, vol. 2, p. 11].

of guard digits and he has shown that the difference between Bürgi’s table and a table recomputed with guard digits is minimized if the computation uses three guard digits [170, 171, 172]. It is therefore safe to assume that Bürgi did the computation with at most three additional digits and rounded the results before putting them in the table. Even without using Bürgi’s original table, we can compare the exact results with the results obtained using guard digits. With three guard digits, almost all the values are correct when rounded on nine digits. But with two guard digits, the error reaches about two units by the end of the table, if no other correcting method is employed. One obtains for instance 999999782 for the red number 230270 instead of the correct 999999780 with three guard digits. Bürgi gave 999999779. And computing with no guard digits would have led to 999999479.

However, even computing with three guard digits is not foolproof, since it is always possible to make a mistake, therefore checks are necessary. Bürgi’s tables contain some anomalies that reveal the existence of checks. For instance, Waldvogel reports that the largest interval of systematic errors takes place between 19890 and 19904, when the error on the last digit is between 1.73 and 2.64 (difference with the unrounded theoretical value) [171, p. 20]. Then, the value for 19905 appears again correctly rounded. Obviously, the correct value comes from elsewhere. Bürgi must have computed check values at regular intervals and this is easy for $n = 2^m$. He may also have checked ratios at certain intervals, perhaps every 5000 values, as given on the cover page. Using adequate checks, Bürgi may have used only two guard digits. In any case, these checks explain why there is no systematic error. The propagation of errors was thwarted. A more detailed analysis of the actual tables might reveal what were these “pivot” values, if any.

By comparison, it is interesting to observe that Napier apparently did not apply some checks that he could have applied, and consequently his tables display a systematic error [143].

4.3 Using Bürgi’s table

When Bürgi’s tables were printed in 1620, it was without the announced “Unterricht.” The introduction was apparently never printed.²⁴ If Bürgi’s tables were really published, which I think is unlikely, they would indeed have been difficult to use, but as Kästner has shown [76], it would have been possible to work out how to use them, at least if the reader was mathematically inclined and had a clue that the tables served a purpose similar to that of logarithms. In any case, a handwritten version of the wanted introduction was eventually found in Gdansk by Johann Friedrich Wilhelm Gronau in 1855 and published by Gieswald in 1856 [53, 54].²⁵ Bürgi’s text mainly gives a number of examples showing

²⁴This was already suggested by Kästner in 1786 [76, p. 96]. One might think that the delay in the printing may have been due to the two colors in the printing, but in fact this seems unlikely. It is much more likely that the printing was made obsolete by the increasing fame of Napier’s logarithms, by Kepler himself using Napier’s logarithms and not Bürgi’s, by Gunter’s table, etc. In fact, the tables that were printed were probably never sold and left incomplete, the project being postponed *sine die*. It is also possible that the introduction was printed, but that all copies have vanished. Some people were probably able to obtain some of the incomplete copies.

²⁵There are slight differences between Gieswald’s two versions. The original manuscript has the red numbers in red, and this feature is reproduced in Gieswald’s first publication. But in the second publication, the red numbers were replaced by italics. Other reproductions of Bürgi’s text, from Gieswald’s first

how interpolation, multiplication, extraction of roots and various proportionals can be computed.

4.3.1 Interpolation

In his “Unterricht,” Bürgi explains the process of interpolation, which happens to be a mere linear interpolation. As an example, he considers the black number 36 and seeks its red number [104, pp. 108–110]. Bürgi considers the number $x = 360000000$ and looks this number up in the table. He finds two approaching black numbers, and their corresponding red numbers:

red	black
128090	359964763
128100	360000759

Let $r_1 = 128090$, $r_2 = 128100$, $b_1 = 359964763$, and $b_2 = 360000759$. Bürgi then considers that $b_2 - b_1 = 35996$ corresponds to 10000 (in fact, representing the difference 10), and concludes that $x - b_1$ corresponds to

$$10000 \times \frac{x - b_1}{b_2 - b_1} \approx 9789,$$

hence the red number sought is $r_1 + 9.789 = 128099\overset{\circ}{7}89$, where the decimal point²⁶ is indicated by Bürgi with a small \circ over the unit 9. The exact value is 128099.78910...

Interpolation was certainly also used to complete the final steps of the table. Assuming that Bürgi found $b(230270) = 999999779$ and $b(230280) = 1000099779$ (both values are truncated), then he could find $b(230270.01) = b(230270) + \frac{0.01}{10} \times (b(230280) - b(230270)) = 999999879$. Similarly, $b(230270.02) = 999999979$, $b(230270.021) = 999999989$, and finally $b(230270.022) = 999999999$, although if correctly rounded, $b(230270.022) = 10^9$. But even with an error of one unit on the last digit, Bürgi could have seen that there are about ten units between the last two terms, and therefore that the red number corresponding to 1000000000 was very close to 230270.022, which is what he concluded on the title page.

4.3.2 Multiplication and scaling

The black numbers cover the range from 10^8 to 10^9 , which is essentially the range 1 to 10. Every number has a black number close to it, when scaled by a power of 10. However, when Bürgi’s table is used for multiplication, the result may need to be rescaled, since it can get out of the range from 1 to 10.

publication, and with comments, can be found in Lutstorf and Walter’s publications [105, 104]. Lutstorf and Walter have also reproduced the covers of the Gdansk and Munich copies and following parts of the tables: 0–4000, 224000–230270. Folta and Nový have also published a typescript of the introduction, together with reproductions of two original pages, the cover of the Gdansk copy, as well as four pages of the tables (0–4000, 28000–32000, 128000–132000, and 228000–230270) [45].

²⁶It has been argued that Bürgi is the inventor of the decimal point [26, pp. 617–619]. Bürgi’s little circle, however, although it has the function of a decimal point, is not a point. Dots have been used by various authors, although not systematically. Pitiscus, for instance, used separating dots in his 1608 and 1612 tables, but these dots were not exclusively separators for a decimal part. The first who seems to have used the dot systematically as a decimal point seems to be Napier [143].

	228000	228500	229000	229500	230000	230000
0	977556601	982456378	987380714	992329732	...	997303557
10	...654356	...554623	...479452	...428965	...	...403287
20	...752122	...652879	...578200	...528208	...	...503027
30	...849897	...751144	...676958	...617461	...	...602778
40	...947682	...849419	...775726	...726724	...	...702538
50	978045477	...547704	...874503	...825996	...	...802308
60	...143281	983045999	...973291	...925279	...	...902088
70	...241096	...144304	988072088	993024572	...	998001879
80	...338920	...242618	...170895	...123874	...	...101679
90	...436754	...340942	...269712	...223187	...	...201489
100	...534597	...439276	...368539	...322509	...	...301309
110	...632451	...537620	...467376	...421841	...	...401139
120	...730314	...635974	...566223	...521183	...	...500979
130	...828187	...734338	...665080	...620535	...	...600829
140	...926070	...832711	...763946	...719898	...	...700690
150	979023962	...931094	...862822	...819269	...	...800560
160	...121865	984029488	...961709	...918651	...	...900440
170	...219777	...177800	980060605	994018043	...	999000330
180	...317699	...226303	...159511	...117445	...	...100230
190	...415631	...324726	...258427	...216857	...	...200140
200	...513572	...423158	...357353	...316278	...	...300060
210	...611524	...521601	...456288	...415710	...	...399990
220	...709485	...620053	...555234	...515152	...	...499930
230	...807456	...718515	...654190	...614603	...	...599880
240	...905437	...816987	...753155	...714065	...	...699840
250	980003427	...915468	...852130	...813536	...	...799810
260	...101427	985013960	...951115	...913017	...	...899790
270	...99438	...112461	990050111	995012509	...	999999779
280	...297457	...210973	...149116	...112010	...	...879
290	...395487	...309494	...248130	...211521	...	...979
300	...493527	...408025	...347155	...311042	...	...89
310	...591576	...506565	...446190	...410573	...	999999999
320	...689635	...605116	...545235	...510115	...	
330	...787704	...703677	...644289	...609666	...	
340	...885783	...802247	...743353	...709227	...	
350	...983872	...900827	...842428	...808797	...	
360	981081970	...99417	...941512	...908378	...	
370	...180078	986098017	991040606	996007969	...	
380	...278156	...196527	...139711	...107570	...	
390	...376324	...295247	...238625	...207181	...	
400	...474462	...393876	...337948	...306801	...	
410	...572609	...492516	...437082	...406432	...	
420	...670766	...591165	...536226	...506073	...	
430	...768934	...689824	...635380	...605723	...	
440	...867110	...788493	...734543	...705384	...	
450	...965297	...887172	...833717	...805054	...	
460	982063494	...985861	...932900	...904735	...	
470	...161700	987084559	992032093	997004425	...	
480	...259916	...183268	...131296	...104126	...	
490	...358142	...281986	...230510	...203836	...	
500	...456378	...380714	...329732	...303557	...	

Also enden sich die
Zwo Summen das
len in 9. Syphern/ vn
ist die Note
230270022
230270023 +
Die Schwarze
aber ist ganz mit 9.
nollen als 1000000000
und so dieselben ganz
gen Talen/nicht gnug
geben mögen / so mag
man dieselben 2.3.4.
5.6.7.8.9.zusammen
addieren.

Figure 3: Last page of Bürgi's tables (source: [105]).

The multiplication procedure is as follows. If we want to multiply x by y , we find their corresponding red numbers $r(x)$ and $r(y)$, assuming x and y are both nine digits integers. If x or y do not have nine digits, their values are scaled, as this does not alter the first digits of the result xy . We then add the red numbers, and compute again the corresponding black number. In other words, we compute $b(r(x) + r(y)) = \frac{b(r(x)) \times b(r(y))}{10^8} = \frac{x \times y}{10^8}$. The multiplication has been replaced by an addition and three table look-ups. Bürgi then merely keeps the first nine digits of the result and these are the first nine digits of (the approximation of) xy .

If $r(x) + r(y) \geq 230270.022$, Bürgi subtracts this value, and therefore computes $b(r(x) + r(y) - 230270.022) = \frac{b(r(x) + r(y))}{10^9}$, which has the same first nine digits as xy .

Divisions are computed similarly, but the red numbers are subtracted. If the result of the subtraction is negative, Bürgi adds 230270.022 in order to remain in the range of the table, without altering the digits.

The pivotal use of the constant 230270.022, which Bürgi calls the “whole red number,” explains why Bürgi tried to compute it very accurately.

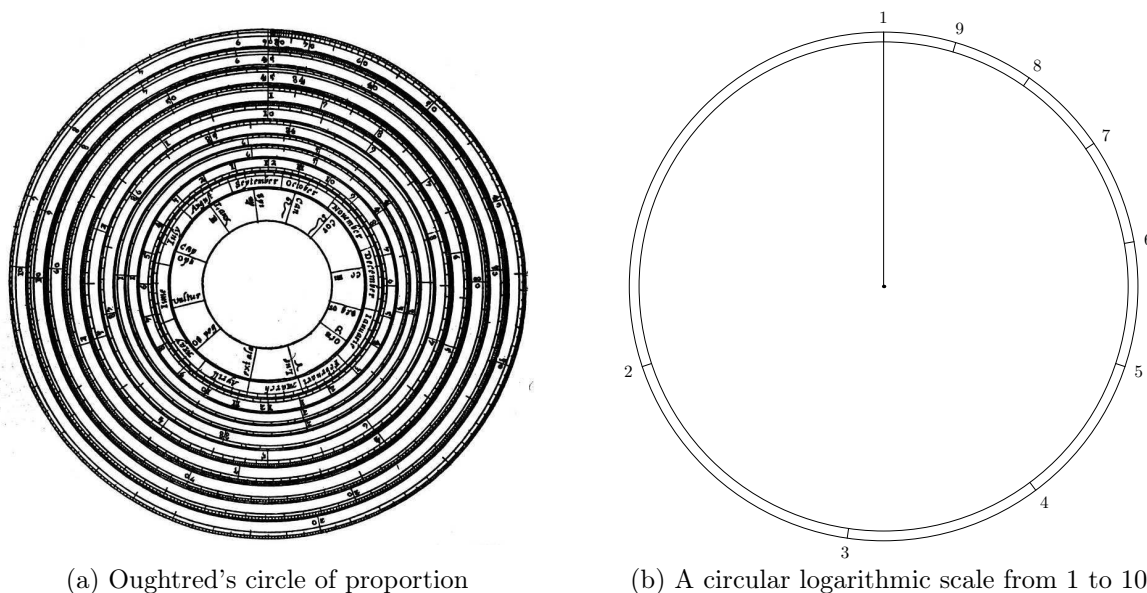


Figure 4: Circles of proportions

4.4 Circles of proportions

Although Bürgi understood that his tables could be extended beyond the black number 999999999 or before 100000000, he does not seem to have felt the need to define such an abstract notion of a general correspondence, very likely because there was no practical need for it. But Bürgi did provide a circular representation of his table on the cover of his tables (figure 1) and this representation is a first step towards circular slide rules. Such a relation had already been observed by Henderson [69, p. 166]. The red and black numbers are given by steps of 5000 of the red numbers. The only hindrance in the way to a circular slide rule was the need to add or subtract a complex constant when multiplying or dividing by 10, a problem that would vanish once the decimal logarithms would be introduced.

And indeed, in 1632, soon after their introduction, William Oughtred published such a circular version of a slide rule (figure 4a) [133, 173]. In this circle, we can in particular notice a circular logarithmic scale going from 1 to 10 counterclockwise (fourth division from the outside). Figure 4b shows this scale alone.

5 Debates

5.1 Positions of the units

There has been some debate about the positions of the units in the arithmetic and geometric sequences, especially since Wolf apparently overlooked the decimal point in 23027⁰022, a point marked by a little circle over the unit digit 0. In 1849, Wolf considered that Bürgi didn't indicate the positions of the units in any of the sequences [175],²⁷ and he took the choice which was most convenient to him in the arithmetic sequence, namely the one in which the red numbers range from 0.0001 to 2.30270022, although nothing in Bürgi's text supports this view. But later, in 1877, Wolf expressed the arithmetic sequence as $x_n = 10n$, with $n = 0$ to 23027 [180, pp. 347–351] and in 1890 he seemed once again to consider that the red numbers range from 0.0001 to 2.30270022 [183, vol. 1, pp. 68–70]. Gerhardt, in his “history of mathematics in Germany” (1877) writes that the arithmetic sequence goes from 0 to 230270022 and also that Bürgi has scaled the arithmetic progression by a factor 10^5 for accuracy [51, pp. 118–119]. Other historians have followed the natural interpretation where the red numbers are multiples of 10. But the copies of Bürgi's tables located at Munich and Gdansk both contain(ed) a small position mark $^\circ$ for the units (see at the end of our reconstruction and on the cover page). This mark is therefore certainly not a mark added at a later time and can be used to support the natural interpretation.

The geometric sequence, however, has no position mark, and its values naturally go from 10^8 to 10^9 . However, this too has been debated. Wolf, Voellmy, and especially Lutstorf, have claimed that Bürgi's black numbers really go from 1 to 10, and not from 10^8 to 10^9 [164, p. 16] [105, p. 18] [104, p. 36]. However, Wolf is again contradicting himself, since in 1877 he also writes that the geometric sequence is $y_n = 10^8 \cdot 1.0001^n$, with $n = 0$ to 23027 [180, pp. 347–351], and in 1890 he considered that the black number 271814593 should be read 2.71814593 [183, vol. 1, pp. 68–70]. This conflicting expression contrasts with the coherence of the description of Napier's ideal sequence $y_n = 10^7 \left(1 - \frac{1}{10^7}\right)^n$ in 1877 and 1890.

For Gerhardt, the geometric progression goes from 10^8 to 10^9 [51, p. 119]. Many other historians, such as Oechslin [130, p. 93], have adopted Wolf's 1890 views. But some, such as Naux [126, vol. 1, pp. 96–97] have shown more care and stated that the position of the unit and the base was not clear.²⁸ Other early historians, such as Matzka [108, p. 139] have remained neutral and interpreted the sequences in the natural way.²⁹

²⁷This may also seem strange, if one remembers the copy at Munich is the one rediscovered by Kästner, and that Kästner explicitly reproduces the unit marking circle in 1786 [76, p. 96].

²⁸But then, Naux does not seem to have read Bürgi's introduction to the table, although he seems aware of its existence.

²⁹We should however note that Matzka, like many other writers, errs on Napier's logarithms, when he basically writes $\log_n 9999999 = 1$, which is incorrect [108, p. 139]. Matzka's first article was published

5.2 Dubious reasonings

For us, all the above claims are based on misunderstandings, wishful thinking, and anachronisms! Wolf, Voellmy, Lutstorf and others have mainly been motivated by the belief that Bürgi's tables *are* tables of logarithms (or antilogarithms), and that Bürgi had defined a function which was an analogue to the function defined by Napier in his *Descriptio*. They have actually confused logarithmic computation with logarithms. I suspect that an important—and perhaps unconscious—motivation was to claim a posthumous anteriority for the invention of logarithms by one of their landsmen.³⁰ Kewitsch summarized very well Wolf's (perhaps unconscious) motivations when he wrote that Wolf “set his lifegoal to draw his landsman Bürgi out of undeserved oblivion” [87, p. 323].

5.2.1 Circular reasonings

In order to set the stage of these dubious reasonings, consider what Wolf writes. With his assumptions, and from the fact that 1 then corresponds to 2.71814593 and 2.30270022 to 10, Wolf incorrectly concluded that his assumptions about the positions of the units were valid. Wolf's reasoning is actually even more contrived, because in his view, Bürgi had really wanted to use a ratio of $\sqrt[10000]{e} = 1.000100005\dots$, and that he approximated this value with 1.0001 for practical reasons [175], [177, p. 75]. In other words, for Wolf, Bürgi discovered the natural logarithms before Napier. One question that Wolf does not ask is: did Bürgi know e and did he actually need to divide the ratio e in 10000 parts? I am afraid that Bürgi had no need for e . Some of these shortcomings of Wolf's analysis had already been noted by Lutstorf [105, pp. 17–18].

Another incorrect—but interesting—analysis is Lutstorf's “proof” that 360000000 really means 3.60000000, and even that 36 really means 3.6, for instance when Bürgi writes that the red number of 36 is 128099.78 [104, p. 110]. This too is a typical example of circular reasoning. First, using an hypothetical function \log_b , Lutstorf takes for granted that $\log_b 10 = 230270.022$, although Bürgi does not say so [104, p. 37]. Then, Lutstorf computes $\log_b(360000000) = \log_b 3.6 + 8 \times \log_b 10$, and assuming $\log_b 3.6 = 128099.789$, he finds $\log_b(360000000) = 1970259.965$ and concludes that since Bürgi's table does not give 1970259.965 for the black number 360000000, that this black number cannot represent 360000000! This reasoning contains two assumptions which help to conclude that the assumptions are correct! Incidentally, the first assumption is even too strong, and Lutstorf could have gone by merely assuming that $\log_b 10 \neq 0$. As Lutstorf writes, this hints to the fact that 360000000 really means 3.6.

5.2.2 Wrong assumptions

Sometimes, the errors arise from wrong implicit assumptions. For instance, from the fact that the red number 0 corresponds to the black number 100000000, which he views as 1, Lutstorf claims that for Bürgi the *logarithm* of 1 is 0 [105, p. 16]. This seems a

in 1850, before Bürgi's introduction was known. But in a second article published in 1859, Matzka has adopted the view according to which the range of the black numbers was 1–10 [109, pp. 351–352].

³⁰It is important to remember that many “popular” encyclopædias covering a large subject are bound to contain many errors, even when written by reputed mathematicians. Two interesting articles worth reading in this context are those of Mautz [113] and Miller [117].

minor point, except that Lutstorf has assumed that Bürgi had conceived such a *logarithm* function.

5.2.3 Tweaking the numbers

If, as Lutstorf, one is convinced that Bürgi had a notion of a logarithmic function, one is bound to hit contradictions. When Bürgi is looking up the red number corresponding to 36, he says that he adds seven zeros to obtain nine digits, because all the black numbers in his table have at least nine digits. He does not say that 360000000 is in fact 3.6. Then he finds the red number corresponding to 360000000 which is 128099.789 [104, p. 108–109]. Next, Bürgi writes that the red number of 36 is 128099.78 [104, p. 110]. This, of course, seems to be a contradiction, but Lutstorf solves this contradiction by proposing *two* changes: first, as we explained above, the black number 360000000 is supposed to mean 3.60000000, and second, 36 is also supposed to mean 3.6! In addition, when Bürgi computes the difference of two black numbers, he finds for instance 35996 [104, p. 110]. If Lutstorf is right, why does Bürgi write 35996 and not perhaps 0.00035996 or 000035996?

It is interesting to relate this to Oechsli's comment that "Bürgi does not write the last value 10 [of the geometric sequence] as 10, which for him would mean 1.0, but as 999999999, which is 9.99999999", and that the "usual reading applies to the numbers of the arithmetic sequence" [130, p. 95]. However, if this is so, how should the number 1000000000 on the last page of tables be interpreted? One should realize that Bürgi has intentionally limited his table to nine digit numbers, and that these numbers had to be all different. This may be one explanation why he rounded the last black number to 999999999 and not to the more correct 1000000000. It makes only very little difference. In any case, the value 1000000000 on the last page must mean 10 times the first value of the table, and cannot merely be equal to it.

5.2.4 Incoherencies

But that is not the whole story. Lutstorf continues with another example [104, p. 38], in case the reader was not totally convinced by the above one. Taking again 360000000, he considers its red number 128099.789, as well as half of this number, 64049.8945, which corresponds to the black number 189736660, which can be read 1.89736660 according to Lutstorf, and this is equal to $\sqrt{3.6}$, which is compatible with an interpretation of 360000000 as 3.6. So far, so good. If instead 360000000 means 36, says Lutstorf, then $\log_b 36 = 128099.789$ (using Bürgi's table), and $\log_b 6 = \frac{1}{2} \log_b 36 = 64049.8945$, but, says Lutstorf, the tables give $\log_b 6 = \log_b 600000000 = 179184.905$. This apparent discrepancy leads Lutstorf to conclude that 360000000 cannot mean 36. The reasoning error is totally obvious, but apparently Lutstorf did not see it: if 360000000 means 36, then 600000000 must mean 60; in other words, the table does not contain $\log_b 6$, but $\log_b 60$, and therefore Lutstorf cannot derive from the tables that $\log_b 6 = 179184.905$. What Lutstorf should have done instead, assuming that $\rho(n) = n \cdot 10^m$ is the table representative of n and that $a < \sqrt{10}$, was to observe that $\log_b(\rho(a)) = \frac{1}{2} \log_b(\rho(a^2))$ is only true for even values of m . And since Bürgi uses this fact in his examples of root extractions, this excludes the interpretation of 360000000 as 36, but allows 360000000 to mean 360, and also ... 360000000. What this really shows is that the range of the black numbers is somewhat (but not totally) irrelevant.

5.3 Relation to Bürgi’s “Coss”

Bürgi’s introduction has one example where 0749472554 really means 0.749472554 and from this sole example, where the decimal mark may accidentally be missing, Lutstorf concludes that all nine digit numbers (and the above is not a nine digit number!) should be read as a value between 1 and 10 [105, p. 5].

This actually happens to be one of the conventions used in Bürgi’s “Coss” [101]. In the “Coss,” which dates from the end of the 1590s, Bürgi considers for instance the case of 00002909 which represents 0.0002909 [101, pp. 23–24]. These conventions, which apply to sines, are also explained by Wolf [179, p. 15]. One argument for viewing the black numbers as values between 1 and 10 is therefore that they can be read using the conventions of the “Coss.”

However, not only does Bürgi not explain the above notation in his introduction to the tables, but the “Coss” itself does not always follow these conventions. There are numerous such counterexamples, for instance on page 33 [101] where he writes “20 und 7 ist 27,” and one wonders why he did not write 1) “20 und 7 ist 27,” or 2) “20 und 7 ist 9.”

5.4 A better interpretation

5.4.1 Bürgi’s correspondence is not injective

The reality is in fact a lot simpler, and there is no need to tweak the numbers to avoid contradictions. If Bürgi had given one more example, say, finding the red number of 360, things would perhaps have become clearer a long time ago. It is easy to guess what Bürgi would have answered. He would have added six zeros to 360, for the same reason as he added seven zeros to 36. And he would have found the same red number as above for 360000000. And finally, Bürgi would have said that the red number of 360 is 128099.78, just as he said that the red number of 36 is 128099.78. This may seem like yet another contradiction, but it is only a contradiction if one insists of writing “the logarithm of” instead of “the red number corresponding to.” These two notions are different. The first notion is that of a function, with particular properties. The logarithm function, whether it is the natural, decimal, or any other based logarithm, is an injective function. In other words, the logarithm of 36 cannot be equal to the logarithm of 360, and the only way to make them equal is somehow to consider that 36 and 360 represent the same value. This is Lutstorf’s erroneous reasoning which forced him (and others) to tweak the numbers.³¹

Bürgi never had any notion of a logarithmic function, which is one reason why he cannot really be claimed as the inventor of the logarithms, even if his *Progress Tabulen* were made before Napier’s tables.³² What Bürgi had was a correspondence between two

³¹We should however observe that Lutstorf recognized that Bürgi’s tables were exhibiting a computational process based on *representations*, in which each black number represents a class of numbers [104, p. 46]. Lutstorf even writes that Bürgi “does in many cases not hesitate to assign the logarithm directly to a sequence of digits, instead of a concrete value” [104, pp. 46–47], but Lutstorf does not realize that here lies the problem. Lutstorf still firmly believes in the existence of a Bürgian logarithm function.

³²Some authors have had a more modern approach, even by Bürgi’s time. For instance, Kepler apparently defined logarithms using an explicit functional approach [62, p. 2]. He defined a *measure* function $M(x)$ which was equal to $10^n \ln x$ for some n . Then he defined the “Keplerian logarithm” $K(x) = M(10^n/x) = 10^n \ln(10^n/x)$ which was basically the Napierian logarithm. But the modern natural logarithm was only an intermediate step, and Kepler’s final function did not have the property

progressions, one arithmetic, the other geometric, *and* a way to find a representative of a number within one of these progressions. The geometric progression goes from 10^8 to 10^9 , but the correct interpretation of Bürgi’s invention does not really rely on this fact. If the progression went from 1 to 10, from 0.01 to 0.1, from 100 to 1000, etc., the problem with 36 and 360 would still be there and would need to be tweaked.³³

5.4.2 The notations of the “Coss” do not apply here

If one looks carefully, it appears that the black numbers do not need to be between 1 and 10. The notations of the “Coss” may suggest a similar reading for the black numbers of the *Progress Tabulen*, but this is in no case a certainty. Moreover, the example where 074... means 0.74... is actually not a black number, but the result of the computation of $\frac{154030185}{205518112}$ [53, p. 30]. The corresponding black number is 749472554, which would be read as 7.49472554 according to the conventions of the “Coss.”

In fact, the black numbers could be considered only as what they are, namely sequences of nine digits. Their position value is only given by an *interpretation*, and is in no way absolute. In addition, although it is a tempting assumption, I do not think that the scale of the black numbers should be related to the practice of giving the trigonometric lines with a radius such as 10^8 or 10^{10} [40, p. 119].

Perhaps one of the main objections against interpreting 36 as 3.6 is that Bürgi’s introduction was not meant to be supplemented by the “Coss,” and if special reading rules were to be applied, Bürgi would have stated them in this introduction. The fact that he hasn’t done so excludes 36 from meaning 3.6.

Compared to the “Coss,” Bürgi has also changed the position of the decimal dot. Given that he made such a change, and explained his new notation, and given that the “Coss” itself does not follow these rules everywhere, why should we want to interpret the black numbers as ranging from 1 to 10, when these need not—only can—be interpreted that way?

$K(xy) = K(x) + K(y)$. For instance, in his 1624 table of logarithms, Kepler has $K(2) = 1081977.82$, $K(30000.00) = 120397.28$, but $K(60000) = 51082.56$ [82]. On the other hand, in 1614 Napier definitely had the notion of a logarithmic function, even though he was missing modern notations. It would take many years until the logarithm would be defined as an exponent (perhaps by Zaragoza in 1669 [127, p. 89]), or the usual law $\log(ab) = \log a + \log b$ be laid down by Gardiner in 1742 [49, p. 1], [162, p. 175].

³³Lutstorf considers Bürgi’s comment about his initial example (cited above, footnote 17) to imply that Bürgi’s main tables start with 1 [104, p. 106]. I don’t think this is a correct interpretation and I believe that Bürgi only meant that the main tables are similar to the first ones, and have similar properties. This does not imply that the first black number is 1. We can state this in another way: even if the black numbers do not start with 1, they exhibit properties similar to the ones in Stifel’s progression, namely that the digits of the multiplication of x by y are those of $b(r(x) + r(y))$. And the fact that Bürgi writes “take the first nine digits” strongly supports this view. Starting the black numbers with 1 is possible, but it is a misunderstanding of Bürgi’s writings. But even if the black numbers were ranging between 1 and 10, it would be only a minor point, since my main objection to Wolf, Lutstorf, and others, is that they failed to see that Bürgi was not computing with an injective function. In fact, the scale of the black numbers is pretty much irrelevant for Bürgi, and starting them with 1 has the only purpose of putting $\log_b 1 = 0$ into Bürgi’s words.

5.4.3 The name “logarithm”

As it should be obvious by now, Bürge never used the word “logarithm,” neither in his tables, nor in his introduction to the tables. This of course does not mean that Bürge did not have a notion of logarithm.

The table and the introduction go back to a time when the word “logarithm” was not yet known. But when Bürge published (or, at least, had printed) the table, he must have known about logarithms, merely because Kepler knew about them by then. So, if the word does not appear on the cover, it can only mean that Bürge did not view his progressions as logarithms. He must have viewed the progressions as a generic auxiliary tool, in contrast to Napier’s logarithms which were still tainted with trigonometry.

5.4.4 The correspondence

We can now conclude. Given Bürge’s correspondence between a black number B and a red number $R = r(B)$, Bürge assigns black and red numbers $black(n)$, $red(n) = r(black(n))$ to a given value n . This assignment is not injective:

$$\begin{aligned} black(36) &= 360000000 \\ black(360) &= 360000000 \\ black(3600) &= 360000000 \\ &\dots \end{aligned}$$

and of course $red(36) = red(360) = red(3600) = \dots = 128099.789$.

When Bürge computes xy , he finds representatives of x and y , and computes with them using his table. In some cases, his computations exceed the capacity of his table, but he has ways to fall back to the table, and then to derive the result of the computation. He has however no such notion as $\log_b(xy) = \log_b(x) + \log_b(y)$.

In view of this interpretation, we can express which function Bürge has implicitly been using to assign red numbers to a value n . Assuming $E(x)$ is the integer part and \log is the decimal logarithm, then Bürge’s functions are

$$\begin{aligned} black(n) &= 10^8 \times \frac{n}{10^{E(\log n)}} \\ red(n) = r(black(n)) &= 10 \left(\frac{\ln(black(n)/10^8)}{\ln 1.0001} \right) = 10 \left(\frac{\ln \left(\frac{n}{10^{E(\log n)}} \right)}{\ln 1.0001} \right) \end{aligned}$$

where the natural logarithm \ln can be replaced by any other based logarithm.

Bürge’s black numbers only cover a range and therefore Oechslin called Bürge’s tables “closed tables” [130, p. 93–94]. This, contrary to what Oechslin seems to imply, is also true of modern tables of decimal logarithms. In fact, what prevented Bürge from manipulating an unbounded range (which would still not be logarithms) was the non-decimal nature of the range of the red numbers. Only with decimal logarithms did it become practical to compute and manipulate the decimal logarithms of any (decimal-based) number.³⁴

³⁴Belyi has claimed that Bürge’s table was more convenient than Napier’s and Briggs’ tables [5, p. 655], but I fail to see how Bürge’s table can be more convenient than Briggs’, since the former is not totally decimal. Others, such as Ayoub, have had opposite opinions. For Ayoub, “Bürge’s table proved to be of very limited use,” but both Napier’s and Bürge’s tables were inferior to Briggs’ [2, p. 353]. Admittedly, Bürge’s table alone is not sufficient for trigonometric calculations, whereas Napier’s table covers all needs.

5.5 Identifying a base

The simple correspondence of Bürgi’s tables has led many authors to seek what was the *base* of Bürgi’s “logarithms,” by trying to see to which value the arithmetic value 1 was corresponding. Some authors seemed in particular to consider that finding a base for Bürgi’s tables warrants Bürgi as an inventor of logarithms. Of course, from the foregoing discussion, one can already anticipate various opinions, since there is a debate about which red number really represents 1. Some authors’ purpose was really to “prove” that Bürgi found an approximation of e , the base of the natural logarithms. The conclusions reached by these authors were usually anachronistic and forgot that one can accidentally come close to a constant. This was very well stated by Mautz in 1921 [114]. In this section, we only give an overview of the debate, and there seems little point in giving all the details.

The first one to write on Bürgi’s tables seems to have been Kästner in 1786 [76]. He was already viewing Bürgi’s table as a table of logarithms,³⁵ and he was entitled to do so, because he did not know the introduction of the table.³⁶ Kästner was perhaps the first one to put Bürgi’s tables in equations and for him, $\log_b 10 = 230270.022$, assuming the black numbers range from 1 to 10 [76, p. 102]. But Kästner understood that this was an interpretation, and on the next page, he wrote that the logarithm of 100 millions is 0 if the black numbers are considered to range from 100 millions to 1000 millions [76, p. 103]. Kästner concluded that the latter was not suited for the ordinary logarithmic computations, and he therefore favored the first interpretation. Finally, Kästner showed how one can compute with these numbers, which casts some doubts on the many authors who wrote that Bürgi’s tables could not have been used without Bürgi’s introduction and examples [76, pp. 103–105].

A few years later, Kästner observed that “Bürgi’s logarithms were easier to use than those of Napier” [78, p. 14]. Curiously, Kästner then wrote that since $\log_b 10 = 230270.022$, it is similar to Briggs’ logarithms [78, p. 15]. Or perhaps he meant that Bürgi’s system was closer to Briggs’ than to Napier’s, given that both in Bürgi’s and in Briggs’ system, the logarithm of 1 (or a number interpreted as 1), which is not true for Napier’s logarithms.

Montucla, in the second edition of his *Histoire des mathématiques* published soon afterwards [119, p. 10], not only quoted Kästner, but pondering the difference between

³⁵This point of view is clearly a consequence of Bramer’s words [11]. Bramer led Kästner to Bürgi, but he also set the frame of the understanding of the tables. Kästner wrote explicitly that “in order to extract the meaning of the tables, I made [the] assumption (...) The red numbers are logarithms of the black ones” and he then checked the validity of his assumption [76, pp. 98–99]. But the validity is merely the absence of contradiction, and it is indeed sound to view the red numbers as logarithms of the black ones, which Kästner, naturally, considers to be between 1 and 10. The absence of contradiction convinces Kästner that Bürgi’s red numbers are logarithms of the black numbers. This, again, is a property, but it does still not mean that Bürgi invented logarithms, for the same reason that we can also find similar properties in Stifel’s work [158, ff. 249–250], or in a book published by Wright in 1599 [143]. Some of the early writings may in fact be misleading. A few years later, in 1797, Kästner wrote for instance that Bürgi had invented logarithms based on the decimal system [77, p. 375], which might induce one to think that Bürgi invented the decimal logarithms, which of course is not the case. Kästner’s words have to be taken more broadly as meaning that Bürgi’s table was fitted to the decimal system, which is true, since its range goes over a ratio of 10.

³⁶Knowing the introduction, Kästner would have understood that Bürgi’s correspondence is not injective, and would have ruled out the invention of logarithms in general.

$10^5 \cdot \ln 10 = 230258.509\dots$ and Bürgi's 230270.022, concluded that Bürgi must have made an error in his computations, although Kästner never said so. So, this incorrect interpretation may have led one to think that Bürgi was the first to produce a table of natural logarithms (which is not totally true, since one appeared in a disguised way in Napier's *Constructio* [143]). But once Gieswald had published the introduction to the tables, such an interpretation could no longer be maintained.

In 1808, soon after Kästner's publication, Klügel also noticed that if Bürgi's progressions are divided by 10^5 and 10^8 , we come close to natural logarithms [90, p. 533].

In 1850, still before Gieswald's publication, Matzka published a long analysis of the notion of base, in which he also considered Bürgi's tables, and one of the base he ended up with was $10^8 \cdot (1.0001)^{1/10} = 100000999.95500\dots$ [108]. Matzka had interpreted the correspondence in a natural way. In 1856, Gieswald [53, p. 25] also used the same interpretation and found the same base. (Both Matzka's and Gieswald's values were slightly incorrect.)

But, soon afterwards in 1858, Wolf [177, p. 74], perhaps intentionally ignoring the position mark found on the cover of Bürgi's tables and on their last page, considered that Bürgi's correspondence was the following

$$\begin{array}{r} 0 \\ \frac{1}{10^4} \\ \frac{2}{10^4} \\ \dots\dots\dots \\ \frac{n}{10^4} \end{array} \quad \begin{array}{l} 1 \\ \left(1 + \frac{1}{10^4}\right) \\ \left(1 + \frac{1}{10^4}\right)^2 \\ \dots\dots\dots \\ \left(1 + \frac{1}{10^4}\right)^n \end{array}$$

and from this he concluded that the black number 1 corresponds to $\left(1 + \frac{1}{10^4}\right)^{10^4} = 2.71814592682\dots$, which of course is close to $e = 2.71828\dots$, but merely because $e = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n$. This idea is the same as that of Klügel (who notices the decimal point mark on the cover), although Wolf does not cite him. Faustmann also seems to adhere to these views [40, pp. 120–121]. Similarly, Launert [94, p. 47] writes that on Bürgi's title page 1,00000 corresponds to 2,71814593 and that therefore Bürgi's logarithms use a base close to e . Klemm [89] seems to conclude in the same way. It should however be observed that Wolf's 1877 *Geschichte* once again seems to contradict his earlier and later writings, in that it does not mention e in Bürgi's context [180, pp. 347–351].

Von Braunmühl, in his history of trigonometry [168, vol. 2, pp. 3–4], writes that the base can be considered either way, either with the black numbers starting with 10^8 , or as Wolf does. Cantor, in 1900, does not hesitate to claim that "Bürgi's logarithms are the logarithms of base e " [26, p. 727] but in the 1892 edition of his book, he was still claiming that Bürgi's base is $\sqrt[10]{1.0001}$. Cantor seems to have changed his mind after some exchanges with Kewitsch [87]. Incidentally, in 1892, Cantor was considering that Napier's base was also $\frac{10^7}{e^{10^{-7}}} = 9999999.00\dots$. In his article, Kewitsch, although he is critical of previous authors such as Wolf and Cantor, concludes much the same with 1.0001^{10000} for Bürgi's base [87, p. 333].

In 1903, Tropfke viewed the black numbers as starting with 10^8 , but still concluded that the base was 2.71814593, hence close to e [162, pp. 147–150].³⁷

³⁷However, Tropfke also writes that for Bürgi and Napier the logarithms were integers and that in their tables there is no decimal point, which is incorrect in both cases [162, p. 158].

Mautz [113] gives a very detailed and clear analysis of this problem, in particular in comparison with Napier’s tables. He describes the results of a number of authors which we haven’t mentioned here, but his conclusions were partly wrong, having assumed that Bürigi’s tables had originally no decimal position mark.³⁸ Mautz does however correct his statements in a further note [114], in which he considered that for the computation of a base, Bürigi’s correspondence was equivalent (but not identical) to the following

$$\begin{array}{rcl}
 & 0 & 1 \\
 10 & \left(1 + \frac{1}{10^4}\right) & \\
 20 & \left(1 + \frac{1}{10^4}\right)^2 & \\
 \dots & \dots & \dots \\
 n & \left(1 + \frac{1}{10^4}\right)^{\frac{n}{10}} &
 \end{array}$$

from which he concluded that 1 corresponds to $\left(1 + \frac{1}{10^4}\right)^{1/10} = 1.00000999955\dots$. However, we stress that by 1921 Mautz did not consider the black numbers to range from 1 to 10.

Voellmy also first considered that the correspondence is the same as the previous one but then seemed to say that Wolf’s approach is more correct, since it leads to an approximation of e [164, p. 17]. The contradictions of the first page do not seem to be a problem for Voellmy [164, p. 18].

For Bruins, the base of Bürigi’s “logarithms” is obviously $1.0001^{10000} = 2.718145927$, whereas that of Napier’s is $1.0000001^{1000000} = 2.718281692$ [15, p. 98]. This, of course, is a misrepresentation of Napier’s work, who never considered that $\log_n(1.0000001) = 0.0000001$, which is Bruins’ underlying assumption.

Mackensen writes that “you have to put the decimal point yourself in the tables,” and 1,00000 corresponds to 2,71814593. But at the same time, he mentions the unit ring $^\circ$ and the correspondence between 230270.022 and 10^9 . This confusion seems to go back to Voellmy on which Mackensen relies [169].

Lutstorf follows Mautz’s 1921 conclusion and also expresses that the base e is “vain wishing” [104, p. 169].

The true conclusion is that Bürigi had no notion of a base and that some authors have tweaked Bürigi’s table to make it say things that it did not contain. It would be ridiculous to assign the first computation of e to Bürigi, but it is true that the value of x such that $b(x) = 10^9$ is close (but not identical) to $10^5 \ln 10$ and that $r(100000)$ is close to $10^8 \times e$. This is a mere coincidence, a consequence of Bürigi’s construction, but an unintentional one.

5.6 Comparing Bürigi and Napier

The works of Bürigi and Napier share a number of features and, in addition, they have been published almost simultaneously. It is therefore not surprising that a number of authors have claimed that Bürigi was the first inventor of logarithms, and the same would probably have taken place in defense of Napier, had he published his *Descriptio* after Bürigi’s *Progress Tabulen*. But, as it should by now be clear, some authors were interested

³⁸Mautz had assumed Wolf’s account to be correct, and that the small circles in the Gdansk copy were later additions, which is incorrect.

in Bürgi for other reasons, either because of his Swiss origins, or because he was a talented clockmaker, and that making him a somewhat unfortunate mathematician adds nicely to his admittedly remarkable work in fine mechanics and clockmaking.

5.6.1 Bürgi's real and false contributions

Wolf, Voellmy, Lutstorf and others have injected into Bürgi's work a notion of logarithm only on the grounds 1) of a computational process, 2) of the implicit presence of e or $\ln 10$ and 3) of $\log_b 1 = 0$. But in fact, only the computational process is really part of Bürgi's work, and in that respect, his work differs only from that of Stifel by a finer-grained division, by the use of a non-integer ratio (which is admitted to be 1.0001 by all), and by a range covering exactly a ratio of 10. These are very important features, but they are not sufficient to ascribe the invention of logarithms to Bürgi. Neither is the use of interpolation sufficient to transform a progression into a notion of logarithm.

Unfortunately, almost every author mentioning Bürgi still feels compelled to add that he invented logarithms, possibly before Napier. Nový, for instance, in the *Dictionary of Scientific Biography*, writes that "possibly at the end of the 1580's, the idea of logarithms occurred to him" [129]. And further, "[T]he tables extend to the value 1,000,000,000 in the geometrical progression, with the corresponding value 230,270,022 in the arithmetic progression. Consequently, Bürgi's logarithms correspond to our so-called natural logarithms with the base e ."³⁹ Such statements are very misleading and incorrect.

Some authors have considered that Bürgi has "calculated a table of logarithms before Napier" [150], but if a mere correspondence between two arithmetic progressions, with calculating rules, is a table of logarithms, then Stifel and others should be named before Napier and Bürgi.⁴⁰ And in fact, Voellmy wrote that "Stifel was the first mathematician who understood and clearly expressed the theory of logarithmic computation" [164, p. 5]. This may be true, but it is different from the claim that Bürgi did discover the notion of logarithms. Voellmy goes so far as concluding that further tables have adopted Bürgi's convention $\log_b 1 = 0$ which is nonsensical, since it was first introduced in Briggs' 1617 table [164, p. 23].

In fact, Napier was the first to define an abstract correspondence between two infinite continua, \mathbb{R}^+ and \mathbb{R} , having the property to transform multiplication into addition.⁴¹ For Napier, $\nu(xy) = \nu(x) + \nu(y) + c$, where $\nu(x)$ is the Napierian (not natural) logarithm and

³⁹Similar conclusions are drawn by Folta and Nový. In addition, they write that to a logarithm ranging from 1 to 230270022, the corresponding nine digit number is given [45], but in fact the red numbers do not range from 1 to 230270022.

⁴⁰Busch is one who writes that logarithms have been discovered by Stifel in 1530 and that Bürgi and Napier laid their foundations. This is also what Matzka does, when he defines logarithms as a correspondence between a geometric and an arithmetic sequence, and calculating rules transforming multiplications into addition. He first concludes that Stifel could be named as the inventor of logarithms shortly before 1544 [109, pp. 352]. But Matzka adds that a practical side is still missing. For Matzka, Bürgi's table is not very convenient to use [109, p. 353], although this opinion seems based on a restricted view concerned with multiplications of small numbers. And this leads Matzka to conclude that it is not Bürgi, but Napier who must be credited for the invention of (practical) logarithms. This somewhat contrived reasoning is quite foreign to our interpretation.

⁴¹One of the rare authors who seem to have understood this point is Friedelmeyer, who in an article on Napier's work, stresses that Bürgi's handling of the terms of two progressions remains "discontinuous," and that he can therefore not be attributed the priority of the invention of logarithms [47, p. 59].

c is a constant. Natural logarithms only came later.⁴² Of course, Napier does not write such an equation, and he has $c \neq 0$, which is objectionable, but so is the non abstract and partial table of Bürgi. In addition to defining a function anticipating the infinitesimal calculus, Napier also had a very clear notion of accuracy.

5.6.2 The granularity of the tables

Bürgi's table divides the interval from 10^8 to 10^9 into a little more than 23027 intervals having the same ratio $1 + \frac{1}{10^4}$. Napier, instead, produced a theoretical division of the interval 10^7 to $5 \cdot 10^6$ into 6900000 intervals, of which he computed only about 1500 carefully chosen ones. This amounts to a division of a ratio 10 in about 23 million intervals.⁴³

Although Napier had a much denser theoretical division than Bürgi, his aim was in a way also more restricted, and he only wanted to compute the logarithms of specific sine values. At the same time, Napier's notion of logarithms was a general one. He had a very clear notion of an abstract definition, that he needed to approach by approximating bounds, using several levels of approximations. There is no such approach in Bürgi's work, where a large interval was divided by "brute force" in a unique long table. As a consequence, there is a difference of complexity between the two approaches, and Bürgi's approach would have been impossible if pushed to Napier's grain.

5.6.3 The abstract notion of logarithms

Although Bürgi understood that his construction would simplify calculations, and that the greater the subdivisions from 10^8 to 10^9 , the greater the accuracy, Bürgi's calculation is not an implementation of an abstract notion, and intermediate values are only approached by linear interpolation, without a clear notion of bounding the errors. Bürgi's correspondence therefore is at the same conceptual level as Stifel's construction, only a lot more detailed, mainly because of a better understanding of decimal fractions. Bürgi devised a general way to simplify calculations and the importance of his work lies in the understanding that the ratio 10 could be subdivided in many smaller intervals and that these subdivisions would follow the properties expounded by Stifel. This work is of a very different nature than that of Napier.

Napier and Bürgi both define a correspondence between an arithmetic and a geometric sequence. For Bürgi, the correspondence is the starting point, but for Napier, the correspondence is a consequence of an abstract definition. They both can compute the value corresponding to any number, in both directions.

5.6.4 The almost decimal nature of Bürgi's system

Bürgi's system is tailored to the decimal system in that he produces a loop (and not a spiral) in which the intervals 1–10, 10–100, ..., are all alike. Earlier correspondences, such

⁴²For a (not totally correct) overview of correspondences in early logarithms and the birth of the idea of natural logarithms, see Burn's study on Alphonse Antonio de Sarasa [19].

⁴³In his first article on Bürgi and Napier, Mautz compared the computation of about 23000 terms by Bürgi with 70000000 terms by Napier [113, p. 30], but not only is the latter value incorrect, it also ignores that Napier only computed a small fraction of his terms.

as those of Stifel, were not circular. The bond between Bürgi's system and the decimal system is in fact a bond between Bürgi's table and the decimal system,⁴⁴ not between Bürgi's theoretical function (which he did not express) and the decimal system.

Napier's system instead was aimed at trigonometry. Although Napier explained that his logarithms could be used to compute square roots, cubic roots, etc., he gave only very few examples. For instance, Napier did not show how to multiply two numbers, although it was possible with his logarithms. As a consequence of Napier's focus, he did not use a circular representation, but in fact he could have. An equivalent representation from 10^7 to 10^6 would have had logarithms go from 0 to 23025850.92... Further turns would add this constant, and Napier had a notation for these constants—a forerunner to the characteristic, which Bürgi had not.⁴⁵ The injective nature of Napier's logarithms actually leads to a spiral, where Bürgi only has a circle.

But Bürgi's circle can also be said to be an immediate anticipation of Oughtred's first circular slide rule, the main difference being that Bürgi's system is still not totally decimal.

5.7 Sorting everything out

Given all the above analysis, it is now easy to conclude. First, Bürgi did not define an abstract notion of logarithms, associating two infinite continuas. He only built a restricted table which could serve as a lookup table to simplify multiplication, division, etc.

But this table has the properties of tables of logarithms, or rather, of antilogarithms.⁴⁶ In particular, one can find a base subtending this table, and one can define logarithm values outside of the range of the table, but Bürgi did not do it. So, it is essential to distinguish these two sides, first that of the abstract notion which Bürgi had not, and second that of the table which was close to a table of logarithms. But again, the same could be said of Stifel and this, once again, is why Bürgi cannot be considered as a discoverer of logarithms.

6 Conclusion

Jost Bürgi was the remarkable combination of an instrument maker, an astronomer and a mathematician, and he made significant contributions in each of these fields.

In this study, we have tried to analyze objectively Bürgi's work on progression tables, in the same way as we have simultaneously analyzed Napier's work [143]. Ever since the discovery of Bürgi's introduction to his tables in 1855, his contributions in the theory

⁴⁴This was certainly what Kästner meant in 1797, see note 35.

⁴⁵The fact that the logarithms of two numbers differing only by a ratio of 10 have different digits was interestingly characterized in 1678 by Juan Caramuel who wrote that "they lack revolution" [127, p. 87].

⁴⁶For Cantor [25], Bürgi's table anticipates the tables of antilogarithms of Dodson [33] and Filipowski [42], but I think that this is not the correct way to look at things. It implicitly assumes that Bürgi had a notion of logarithms, and Dodson and Filipowski's tables were based on this notion. Their tables were not a starting point, they were tables based on the notion of logarithms and on prior tables of logarithms. To consider Bürgi's tables as tables of antilogarithms is a false reinterpretation of the past, when these tables are merely progression tables. They should not be viewed as tables of antilogarithms, even though they share their properties.

of logarithms have only rarely been questioned, and, most often, only been tweaked to make them fit in a more general framework.

It is actually symptomatic that very few authors who wrote on Bürgi have taken the time to analyze Napier's system [143]. Gieswald, Wolf, Voellmy, Lutstorf and others, have not given to Napier the same attention as to Bürgi, which may explain a certain lack of objectivity. Then, later authors, perhaps relying on earlier authors, have followed their path, although they did not have to.

In order to answer objectively the questions about Bürgi's contribution to logarithms, it is first necessary to analyze what logarithms are. Stifel's progressions exhibit properties of logarithms, but are they logarithms? Does a finer subdivision of Stifel's progression produce logarithms? Is a means of replacing multiplications by additions the same as logarithms? Is a table of logarithms the same as the invention of the abstract notion of logarithms?

There is no doubt that Bürgi came very close to the notion of logarithm, but if we call logarithms a correspondence between two infinite continua representing real numbers, such that multiplication becomes addition, then Bürgi obviously only partly attained it, whereas Napier undoubtedly hit it.⁴⁷ We can of course understand why this happened. It is in particular clear that Napier's kinematic approach based on the theory of proportions gave him naturally a firm base in two infinite continua.⁴⁸ We can also observe that Napier went beyond his needs. He needed only to define logarithms of sines, but his definition goes beyond. Bürgi, on the other hand, basically only needed to define the multiplication of numbers between 1 and 10 (or 10^8 and 10^9) and he therefore introduced a restricted way to do these computations, which at the same time prevented him from defining the general logarithm function which he didn't really need.

A fair comparison between Napier and Bürgi requires a clear definition of the notion of logarithms, but it also makes it necessary to distinguish the abstract notion of logarithm from the knowledge of logarithmic computation. It is by confusing these two notions that many authors were led to attribute the discovery of logarithms to Bürgi or some of his forerunners, when they have in fact only produced what are, admittedly, tables of logarithms.

That being said, our purpose was in no way to diminish Bürgi's contributions. Instead, we are a great admirer of his technical and mathematical contributions. But we have felt that justice had not been given to the *Progress Tabulen* and that wishful thinking by Swiss landsmen had somewhat distorted Bürgi's work, and that it had again to be put straight.

Although we do not consider that Bürgi discovered or invented logarithms, we think it is still appropriate to quote the words of Cajori in 1915:

“The facts as they are known to-day assign to Napier the glory of a star of the first magnitude as the inventor of logarithms who first gave them to the

⁴⁷In 1599, prior to Napier, logarithms had been used by Edward Wright (who translated Napier's *Descriptio* [124]), but without Wright realizing that he had done so, and without using them to simplify calculations [23]. Therefore, Wright can not (and did not) lay claim on a prior discovery. See Wedemeyer's article [174] for additional information.

⁴⁸It should be said at this point that Napier's approach also had forerunners, in particular the Portuguese Alvarus Thomas who in 1509 used a geometric progression to divide a line [159, 23].

world, and to Bürgi the glory of a star of lesser magnitude, but shining with an independent light.” [23, p. 109]

7 Note on the recomputation

The recomputation of the table in the appendix was straightforward and was done with the GNU `mpfr` multiprecision library [46]. The computations were done exactly, and it can be seen that they differ very little from Bürgi’s tables. A previous recomputation was published by Lutstorf and Walter in 1992 and their values seem to agree with our values [105].

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The following list covers the most important references⁴⁹ related to Bürgi's tables. For the sake of completeness, we have added a number of items which either have only marginal interest, or contain errors and oversimplifications. The reader should always compare the sources. The main source on Bürgi's *Canon sinuum* is List and Bialas' study, and the main sources on Bürgi's tables are the original tables and their introduction published by Gieswald. Not all items of this list are mentioned in the text, and the sources which have not been seen are marked so. We have added notes about the contents of the articles in certain cases.

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⁴⁹**Note on the titles of the works:** Original titles come with many idiosyncrasies and features (line splitting, size, fonts, etc.) which can often not be reproduced in a list of references. It has therefore seemed pointless to capitalize works according to conventions which not only have no relation with the original work, but also do not restore the title entirely. In the following list of references, most title words (except in German) will therefore be left uncapitalized. The names of the authors have also been homogenized and initials expanded, as much as possible.

The reader should keep in mind that this list is not meant as a facsimile of the original works. The original style information could no doubt have been added as a note, but we have not done it here.

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Buergi's table (reconstruction, D. Roegel, 2010)

	0	500	1000	1500	2000	2500	3000	3500
0	100000000	100501227	101004966	101511230	102020032	102531384	103045299	103561790
10	....10000	....11277	....15067	....21381	....30234	....41637	....55603	....72146
20	....20001	....21328	....25168	....31534	....40437	....51891	....65909	....82503
30	....30003	....31380	....35271	....41687	....50641	....62146	....76216	....92861
40	....40006	....41433	....45374	....51841	....60846	....72403	....86523	103603221
50	....50010	....51488	....55479	....61996	....71052	....82660	....96832	....13581
60	....60015	....61543	....65584	....72152	....81259	....92918	103107141	....23942
70	....70021	....71599	....75691	....82310	....91467	102603177	....17452	....34305
80	....80028	....81656	....85798	....92468	102101677	....13438	....27764	....44668
90	....90036	....91714	....95907	101602627	....11887	....23699	....38077	....55033
100	100100045	100601773	101106017	....12787	....22098	....33961	....48391	....65398
110	....10055	....11834	....16127	....22949	....32310	....44225	....58705	....75765
120	....20066	....21895	....26239	....33111	....42523	....54489	....69021	....86132
130	....30078	....31957	....36351	....43274	....52738	....64755	....79338	....96501
140	....40091	....42020	....46465	....53438	....62953	....75021	....89656	103706870
150	....50105	....52084	....56580	....63604	....73169	....85289	....99975	....17241
160	....60120	....62150	....66695	....73770	....83387	....95557	103210295	....27613
170	....70136	....72216	....76812	....83938	....93605	102705827	....20616	....37986
180	....80153	....82283	....86930	....94106	102203824	....16097	....30938	....48359
190	....90171	....92351	....97048	101704275	....14045	....26369	....41261	....58734
200	100200190	100702420	101207168	....14446	....24266	....36642	....51585	....69110
210	....10210	....12491	....17289	....24617	....34488	....46915	....61910	....79487
220	....20231	....22562	....27411	....34790	....44712	....57190	....72237	....89865
230	....30253	....32634	....37533	....44963	....54936	....67466	....82564	103800244
240	....40276	....42707	....47657	....55138	....65162	....77742	....92892	....10624
250	....50300	....52782	....57782	....65313	....75388	....88020	103303221	....21005
260	....60325	....62857	....67908	....75490	....85616	....98299	....13552	....31387
270	....70351	....72933	....78034	....85667	....95844	102808579	....23883	....41770
280	....80378	....83011	....88162	....95846	102306074	....18860	....34216	....52154
290	....90406	....93089	....98291	101806025	....16305	....29142	....44549	....62540
300	100300435	100803168	101308421	....16206	....26536	....39424	....54883	....72926
310	....10465	....13249	....18552	....26388	....36769	....49708	....65219	....83313
320	....20496	....23330	....28684	....36570	....47003	....59993	....75555	....93702
330	....30529	....33412	....38816	....46754	....57237	....70279	....85893	103904091
340	....40562	....43496	....48950	....56939	....67473	....80566	....96232	....14481
350	....50596	....53580	....59085	....67124	....77710	....90854	103406571	....24873
360	....60631	....63665	....69221	....77311	....87948	102901144	....16912	....35265
370	....70667	....73752	....79358	....87499	....98186	....11434	....27254	....45659
380	....80704	....83839	....89496	....97687	102408426	....21725	....37596	....56053
390	....90742	....93927	....99635	101907877	....18667	....32017	....47940	....66449
400	100400781	100904017	101409775	....18068	....28909	....42310	....58285	....76846
410	....10821	....14107	....19916	....28260	....39152	....52604	....68631	....87243
420	....20862	....24199	....30058	....38453	....49396	....62900	....78977	....97642
430	....30904	....34291	....40201	....48647	....59641	....73196	....89325	104008042
440	....40947	....44384	....50345	....58841	....69887	....83493	....99674	....18443
450	....50991	....54479	....60490	....69037	....80134	....93792	103510024	....28844
460	....61037	....64574	....70636	....79234	....90382	103004091	....20375	....39247
470	....71083	....74671	....80783	....89432	102500631	....14391	....30727	....49651
480	....81130	....84768	....90931	....99631	....10881	....24693	....41080	....60056
490	....91178	....94867	101501080	102009831	....21132	....34995	....51435	....70462
500	100501227	101004966	....11230	....20032	....31384	....45299	....61790	....80869

Buergi's table (reconstruction, D. Roegel, 2010)

	4000	4500	5000	5500	6000	6500	7000	7500
0	104080869	104602551	105126847	105653771	106183336	106715556	107250443	107788011
10	...91277	...13011	...37360	...64336	...93954	...26227	...61168	...98790
20	104101686	...23472	...47873	...74903	106204574	...36900	...71894	107809570
30	...12097	...33935	...58388	...85470	...15194	...47574	...82621	...20351
40	...22508	...44398	...68904	...96039	...25816	...58248	...93349	...31133
50	...32920	...54862	...79421	105706608	...36438	...68924	107304079	...41916
60	...43333	...65328	...89939	...17179	...47062	...79601	...14809	...52700
70	...53748	...75794	105200458	...27751	...57687	...90279	...25541	...63485
80	...64163	...86262	...10978	...38324	...68313	106800958	...36273	...74272
90	...74580	...96731	...21499	...48897	...78939	...11638	...47007	...85059
100	...84997	104707200	...32021	...59472	...89567	...22319	...57741	...95847
110	...95415	...17671	...42544	...70048	106300196	...33001	...68477	107906637
120	104205835	...28143	...53068	...80625	...10826	...43685	...79214	...17428
130	...16256	...38616	...63594	...91203	...21457	...54369	...89952	...28219
140	...26677	...49089	...74120	105801782	...32089	...65055	107400691	...39012
150	...37100	...59564	...84648	...12363	...42723	...75741	...11431	...49806
160	...47524	...70040	...95176	...22944	...53357	...86429	...22172	...60601
170	...57948	...80517	105305706	...33526	...63992	...97117	...32914	...71397
180	...68374	...90995	...16236	...44109	...74629	106907807	...43658	...82194
190	...78801	104801474	...26768	...54694	...85266	...18498	...54402	...92993
200	...89229	...11955	...37300	...65279	...95905	...29190	...65148	108003792
210	...99658	...22436	...47834	...75866	106406544	...39883	...75894	...14592
220	104310088	...32918	...58369	...86453	...17185	...50577	...86642	...25394
230	...20519	...43401	...68905	...97042	...27827	...61272	...97390	...36196
240	...30951	...53886	...79442	105907632	...38469	...71968	107508140	...47000
250	...41384	...64371	...89980	...18223	...49113	...82665	...18891	...57805
260	...51818	...74858	105400519	...28814	...59758	...93363	...29643	...68610
270	...62253	...85345	...11059	...39407	...70404	107004063	...40396	...79417
280	...72689	...95834	...21600	...50001	...81051	...14763	...51150	...90225
290	...83127	104906323	...32142	...60596	...91699	...25464	...61905	108101034
300	...93565	...16814	...42685	...71192	106502348	...36167	...72661	...11844
310	104404004	...27305	...53229	...81789	...12999	...46871	...83418	...22655
320	...14445	...37798	...63775	...92388	...23650	...57575	...94177	...33468
330	...24886	...48292	...74321	106002987	...34302	...68281	107604936	...44281
340	...35329	...58787	...84869	...13587	...44956	...78988	...15697	...55095
350	...45772	...69283	...95417	...24188	...55610	...89696	...26458	...65911
360	...56217	...79780	105505967	...34791	...66266	107100405	...37221	...76728
370	...66662	...90278	...16517	...45394	...76922	...11115	...47985	...87545
380	...77109	105000777	...27069	...55999	...87580	...21826	...58749	...98364
390	...87557	...11277	...37621	...66605	...98239	...32538	...69515	108209184
400	...98006	...21778	...48175	...77211	106608899	...43251	...80282	...20005
410	104508455	...32280	...58730	...87819	...19560	...53966	...91050	...30827
420	...18906	...42783	...69286	...98428	...30222	...64681	107701819	...41650
430	...29358	...53287	...79843	106109038	...40885	...75397	...12589	...52474
440	...39811	...63793	...90401	...19648	...51549	...86115	...23361	...63299
450	...50265	...74299	105600960	...30260	...62214	...96834	...34133	...74126
460	...60720	...84807	...11520	...40873	...72880	107207553	...44906	...84953
470	...71176	...95315	...22081	...51487	...83547	...18274	...55681	...95781
480	...81633	105105825	...32643	...62103	...94216	...28996	...66457	108306611
490	...92091	...16335	...43207	...72719	106704885	...39719	...77233	...17442
500	104602551	...26847	...53771	...83336	...15556	...50443	...88011	...28273

Buergi's table (reconstruction, D. Roegel, 2010)

	8000	8500	9000	9500	10000	10500	11000	11500
0	108328273	108871244	109416936	109965363	110516539	111070478	111627193	112186699
10	...39106	...82131	...27878	...76360	...27591	...81585	...38356	...97917
20	...49940	...93019	...38821	...87357	...38644	...92693	...49520	112209137
30	...60775	108903909	...49764	...98356	...49698	111103802	...60685	...20358
40	...71611	...14799	...60709	110009356	...60753	...14913	...71851	...31580
50	...82448	...25691	...71655	...20357	...71809	...26024	...83018	...42803
60	...93287	...36583	...82603	...31359	...82866	...37137	...94186	...54028
70	108404126	...47477	...93551	...42362	...93924	...48251	111705356	...65253
80	...14966	...58371	109504500	...53366	110604983	...59365	...16526	...76480
90	...25808	...69267	...15451	...64372	...16044	...70481	...27698	...87707
100	...36651	...80164	...26402	...75378	...27106	...81598	...38871	...98936
110	...47494	...91062	...37355	...86386	...38168	...92717	...50044	112310166
120	...58339	109001961	...48309	...97394	...49232	111203836	...61219	...21397
130	...69185	...12862	...59263	110108404	...60297	...14956	...72396	...32629
140	...80032	...23763	...70219	...19415	...71363	...26078	...83573	...43862
150	...90880	...34665	...81176	...30427	...82430	...37200	...94751	...55097
160	108501729	...45569	...92134	...41440	...93498	...48324	111805931	...66332
170	...12579	...56473	109603094	...52454	110704568	...59449	...17111	...77569
180	...23430	...67379	...14054	...63469	...15638	...70575	...28293	...88807
190	...34283	...78286	...25015	...74486	...26710	...81702	...39476	112400045
200	...45136	...89193	...35978	...85503	...37782	...92830	...50660	...11285
210	...55990	109100102	...46942	...96522	...48856	111303959	...61845	...22527
220	...66846	...11012	...57906	110207541	...59931	...15090	...73031	...33769
230	...77703	...21923	...68872	...18562	...71007	...26221	...84218	...45012
240	...88561	...32836	...79839	...29584	...82084	...37354	...95407	...56257
250	...99419	...43749	...90807	...40607	...93162	...48488	111906596	...67502
260	108610279	...54663	109701776	...51631	110804242	...59622	...17787	...78749
270	...21140	...65579	...12746	...62656	...15322	...70758	...28979	...89997
280	...32002	...76495	...23717	...73682	...26404	...81896	...40172	112501246
290	...42866	...87413	...34690	...84710	...37486	...93034	...51366	...12496
300	...53730	...98332	...45663	...95738	...48570	111404173	...62561	...23747
310	...64595	109209252	...56638	110306768	...59655	...15313	...73757	...35000
320	...75462	...20173	...67613	...17798	...70741	...26455	...84954	...46253
330	...86329	...31095	...78590	...28830	...81828	...37598	...96153	...57508
340	...97198	...42018	...89568	...39863	...92916	...48741	112007352	...68764
350	108708068	...52942	109800547	...50897	110904005	...59886	...18553	...80020
360	...18939	...63867	...11527	...61932	...15096	...71032	...29755	...91278
370	...29810	...74794	...22508	...72968	...26187	...82179	...40958	112602538
380	...40683	...85721	...33491	...84006	...37280	...93328	...52162	...13798
390	...51557	...96650	...44474	...95044	...48374	111504477	...63367	...25059
400	...62433	109307579	...55458	110406083	...59469	...15627	...74574	...36322
410	...73309	...18510	...66444	...17124	...70564	...26779	...85781	...47585
420	...84186	...29442	...77430	...28166	...81662	...37932	...96990	...58850
430	...95065	...40375	...88418	...39209	...92760	...49085	112108199	...70116
440	108805944	...51309	...99407	...50253	111003859	...60240	...19410	...81383
450	...16825	...62244	109910397	...61298	...14959	...71396	...30622	...92651
460	...27706	...73180	...21388	...72344	...26061	...82553	...41835	112703920
470	...38589	...84118	...32380	...83391	...37163	...93712	...53049	...15191
480	...49473	...95056	...43373	...94439	...48267	111604871	...64265	...26462
490	...60358	109405995	...54368	110505489	...59372	...16032	...75481	...37735
500	...71244	...16936	...65363	...16539	...70478	...27193	...86699	...49009

Buergi's table (reconstruction, D. Roegel, 2010)

	12000	12500	13000	13500	14000	14500	15000	15500
0	112749009	113314137	113882098	114452906	115026575	115603119	116182553	116764891
10	...60284	...25469	...93486	...64351	...38077	...14679	...94171	...76568
20	...71560	...36801	113904876	...75798	...49581	...26241	116205791	...88245
30	...82837	...48135	...16266	...87245	...61086	...37803	...17411	...99924
40	...94115	...59470	...27658	...98694	...72592	...49367	...29033	116811604
50	112805394	...70806	...39051	114510144	...84100	...60932	...40656	...23285
60	...16675	...82143	...50444	...21595	...95608	...72498	...52280	...34968
70	...27957	...93481	...61840	...33047	115107118	...84065	...63905	...46651
80	...39239	113404820	...73236	...44500	...18628	...95634	...75532	...58336
90	...50523	...16161	...84633	...55955	...30140	115707203	...87159	...70022
100	...61808	...27502	...96032	...67410	...41653	...18774	...98788	...81709
110	...73095	...38845	114007431	...78867	...53167	...30346	116310418	...93397
120	...84382	...50189	...18832	...90325	...64683	...41919	...22049	116905086
130	...95670	...61534	...30234	114601784	...76199	...53493	...33681	...16777
140	112906960	...72880	...41637	...13244	...87717	...65069	...45314	...28468
150	...18251	...84227	...53041	...24706	...99235	...76645	...56949	...40161
160	...29542	...95576	...64446	...36168	115210755	...88223	...68585	...51855
170	...40835	113506925	...75853	...47632	...22276	...99802	...80221	...63550
180	...52130	...18276	...87260	...59096	...33799	115811382	...91859	...75247
190	...63425	...29628	...98669	...70562	...45322	...22963	116403499	...86944
200	...74721	...40981	114110079	...82029	...56847	...34545	...15139	...98643
210	...86019	...52335	...21490	...93498	...68372	...46128	...26780	117010343
220	...97317	...63690	...32902	114704967	...79899	...57713	...38423	...22044
230	113008617	...75047	...44315	...16437	...91427	...69299	...50067	...33746
240	...19918	...86404	...55730	...27909	115302956	...80886	...61712	...45449
250	...31220	...97763	...67145	...39382	...14487	...92474	...73358	...57154
260	...42523	113609122	...78562	...50856	...26018	115904063	...85005	...68860
270	...53827	...20483	...89980	...62331	...37551	...15653	...96654	...80567
280	...65132	...31845	114201399	...73807	...49084	...27245	116508304	...92275
290	...76439	...43209	...12819	...85284	...60619	...38838	...19954	117103984
300	...87747	...54573	...24240	...96763	...72155	...50432	...31606	...15694
310	...99055	...65938	...35663	114808243	...83693	...62027	...43260	...27406
320	113110365	...77305	...47086	...19723	...95231	...73623	...54914	...39119
330	...21676	...88673	...58511	...31205	115406770	...85220	...66569	...50833
340	...32989	113700042	...69937	...42689	...18311	...96819	...78226	...62548
350	...44302	...11412	...81364	...54173	...29853	116008418	...89884	...74264
360	...55616	...22783	...92792	...65658	...41396	...20019	116601543	...85981
370	...66932	...34155	114304221	...77145	...52940	...31621	...13203	...97700
380	...78249	...45528	...15652	...88633	...64485	...43224	...24864	117209420
390	...89566	...56903	...27083	114900121	...76032	...54829	...36527	...21141
400	113200885	...68279	...38516	...11611	...87579	...66434	...48191	...32863
410	...12205	...79655	...49950	...23103	...99128	...78041	...59855	...44586
420	...23527	...91033	...61385	...34595	115510678	...89649	...71521	...56310
430	...34849	113802413	...72821	...46088	...22229	116101258	...83188	...68036
440	...46172	...13793	...84258	...57583	...33781	...12868	...94857	...79763
450	...57497	...25174	...95697	...69079	...45335	...24479	116706526	...91491
460	...68823	...36557	114407136	...80576	...56889	...36092	...18197	117303220
470	...80150	...47940	...18577	...92074	...68445	...47705	...29869	...14950
480	...91478	...59325	...30019	115003573	...80002	...59320	...41542	...26682
490	113302807	...70711	...41462	...15073	...91560	...70936	...53216	...38415
500	...14137	...82098	...52906	...26575	115603119	...82553	...64891	...50148

Buergi's table (reconstruction, D. Roegel, 2010)

	16000	16500	17000	17500	18000	18500	19000	19500
0	117350148	117938339	118529478	119123579	119720659	120320731	120923811	121529914
10	...61883	...50133	...41331	...35492	...32631	...32763	...35903	...42067
20	...73620	...61928	...53185	...47405	...44604	...44796	...47997	...54221
30	...85357	...73724	...65040	...59320	...56579	...56831	...60092	...66376
40	...97095	...85521	...76897	...71236	...68554	...68867	...72188	...78533
50	117408835	...97320	...88754	...83153	...80531	...80904	...84285	...90691
60	...20576	118009120	118600613	...95071	...92509	...92942	...96383	121602850
70	...32318	...20921	...12473	119206991	119804488	120404981	121008483	...15010
80	...44061	...32723	...24334	...18912	...16469	...17021	...20584	...27172
90	...55806	...44526	...36197	...30834	...28451	...29063	...32686	...39334
100	...67551	...56330	...48061	...42757	...40433	...41106	...44789	...51498
110	...79298	...68136	...59925	...54681	...52417	...53150	...56894	...63664
120	...91046	...79943	...71791	...66606	...64403	...65195	...68999	...75830
130	117502795	...91751	...83659	...78533	...76389	...77242	...81106	...87998
140	...14545	118103560	...95527	...90461	...88377	...89290	...93214	121700166
150	...26297	...15370	118707396	119302390	119900366	120501339	121105324	...12336
160	...38049	...27182	...19267	...14320	...12356	...13389	...17434	...24508
170	...49803	...38995	...31139	...26252	...24347	...25440	...29546	...36680
180	...61558	...50808	...43012	...38184	...36339	...37493	...41659	...48854
190	...73314	...62624	...54887	...50118	...48333	...49546	...53773	...61029
200	...85072	...74440	...66762	...62053	...60328	...61601	...65889	...73205
210	...96830	...86257	...78639	...73989	...72324	...73657	...78005	...85382
220	117608590	...98076	...90517	...85927	...84321	...85715	...90123	...97561
230	...20351	118209896	118802396	...97865	...96320	...97773	121202242	121809740
240	...32113	...21717	...14276	119409805	120008319	120609833	...14362	...21921
250	...43876	...33539	...26157	...21746	...20320	...21894	...26484	...34103
260	...55640	...45362	...38040	...33688	...32322	...33956	...38606	...46287
270	...67406	...57187	...49924	...45632	...44325	...46020	...50730	...58471
280	...79173	...69012	...61809	...57576	...56330	...58084	...62855	...70657
290	...90941	...80839	...73695	...69522	...68335	...70150	...74982	...82844
300	117702710	...92667	...85582	...81469	...80342	...82217	...87109	...95033
310	...14480	118304497	...97471	...93417	...92350	...94285	...99238	121907222
320	...26251	...16327	118909361	119505366	120104359	120706355	121311368	...19413
330	...38024	...28159	...21251	...17317	...16370	...18425	...23499	...31605
340	...49798	...39992	...33144	...29269	...28381	...30497	...35631	...43798
350	...61573	...51826	...45037	...41221	...40394	...42570	...47765	...55992
360	...73349	...63661	...56931	...53176	...52408	...54645	...59899	...68188
370	...85126	...75497	...68827	...65131	...64424	...66720	...72035	...80385
380	...96905	...87335	...80724	...77087	...76440	...78797	...84173	...92583
390	117808685	...99173	...92622	...89045	...88458	...90875	...96311	122004782
400	...20465	118411013	119004521	119601004	120200477	120802954	121408451	...16983
410	...32247	...22854	...16422	...12964	...12497	...15034	...20592	...29184
420	...44031	...34697	...28323	...24925	...24518	...27116	...32734	...41387
430	...55815	...46540	...40226	...36888	...36540	...39198	...44877	...53591
440	...67601	...58385	...52130	...48852	...48564	...51282	...57021	...65797
450	...79387	...70231	...64035	...60817	...60589	...63367	...69167	...78003
460	...91175	...82078	...75942	...72783	...72615	...75454	...81314	...90211
470	117902965	...93926	...87849	...84750	...84642	...87541	...93462	122102420
480	...14755	118505775	...99758	...96718	...96671	...99630	121505611	...14630
490	...26546	...17626	119111668	119708688	120308700	120911720	...17762	...26842
500	...38339	...29478	...23579	...20659	...20731	...23811	...29914	...39055

Buergi's table (reconstruction, D. Roegel, 2010)

	20000	20500	21000	21500	22000	22500	23000	23500
0	122139055	122751248	123366511	123984857	124606302	125230863	125858554	126489391
10	...51268	...63523	...78847	...97255	...18763	...43386	...71140	126502040
20	...63484	...75800	...91185	124009655	...31225	...55910	...83727	...14690
30	...75700	...88077	123403524	...22056	...43688	...68436	...96315	...27341
40	...87917	122800356	...15865	...34458	...56152	...80963	125908905	...39994
50	122200136	...12636	...28206	...46862	...68618	...93491	...21496	...52648
60	...12356	...24918	...40549	...59266	...81085	125306020	...34088	...65303
70	...24577	...37200	...52893	...71672	...93553	...18551	...46681	...77960
80	...36800	...49484	...65238	...84080	124706022	...31083	...59276	...90618
90	...49024	...61769	...77585	...96488	...18493	...43616	...71872	126603277
100	...61249	...74055	...89933	124108898	...30965	...56150	...84469	...15937
110	...73475	...86342	123502282	...21308	...43438	...68686	...97067	...28599
120	...85702	...98631	...14632	...33721	...55912	...81223	126009667	...41261
130	...97931	122910921	...26983	...46134	...68388	...93761	...22268	...53926
140	122310160	...23212	...39336	...58549	...80865	125406300	...34870	...66591
150	...22391	...35504	...51690	...70964	...93343	...18841	...47474	...79258
160	...34624	...47798	...64045	...83382	124805822	...31383	...60078	...91926
170	...46857	...60093	...76402	...95800	...18303	...43926	...72685	126704595
180	...59092	...72389	...88759	124208219	...30785	...56470	...85292	...17265
190	...71328	...84686	123601118	...20640	...43268	...69016	...97900	...29937
200	...83565	...96984	...13478	...33062	...55752	...81563	126110510	...42610
210	...95803	123009284	...25840	...45486	...68238	...94111	...23121	...55284
220	122408043	...21585	...38202	...57910	...80724	125506660	...35733	...67960
230	...20284	...33887	...50566	...70336	...93212	...19211	...48347	...80637
240	...32526	...46190	...62931	...82763	124905702	...31763	...60962	...93315
250	...44769	...58495	...75297	...95191	...18192	...44316	...73578	126805994
260	...57013	...70801	...87665	124307621	...30684	...56870	...86195	...18675
270	...69259	...83108	123700034	...20052	...43177	...69426	...98814	...31356
280	...81506	...95416	...12404	...32484	...55672	...81983	126211434	...44040
290	...93754	123107726	...24775	...44917	...68167	...94541	...24055	...56724
300	122506003	...20037	...37147	...57351	...80664	125607101	...36677	...69410
310	...18254	...32349	...49521	...69787	...93162	...19661	...49301	...82097
320	...30506	...44662	...61896	...82224	125005661	...32223	...61926	...94785
330	...42759	...56976	...74272	...94662	...18162	...44787	...74552	126907474
340	...55013	...69292	...86650	124407102	...30664	...57351	...87180	...20165
350	...67269	...81609	...99028	...19542	...43167	...69917	...99808	...32857
360	...79525	...93927	123811408	...31984	...55671	...82484	126312438	...45550
370	...91783	123206246	...23789	...44428	...68177	...95052	...25070	...58245
380	122604043	...18567	...36172	...56872	...80683	125707622	...37702	...70941
390	...16303	...30889	...48555	...69318	...93192	...20192	...50336	...83638
400	...28565	...43212	...60940	...81765	125105701	...32764	...62971	...96336
410	...40827	...55536	...73326	...94213	...18211	...45338	...75607	127009036
420	...53092	...67862	...85714	124506662	...30723	...57912	...88245	...21737
430	...65357	...80189	...98102	...19113	...43236	...70488	126400884	...34439
440	...77623	...92517	123910492	...31565	...55751	...83065	...13524	...47142
450	...89891	123304846	...22883	...44018	...68266	...95643	...26165	...59847
460	122702160	...17176	...35275	...56472	...80783	125808223	...38808	...72553
470	...14430	...29508	...47669	...68928	...93301	...20804	...51451	...85260
480	...26702	...41841	...60064	...81385	125205820	...33386	...64097	...97969
490	...38974	...54175	...72460	...93843	...18341	...45969	...76743	127110679
500	...51248	...66511	...84857	124606302	...30863	...58554	...89391	...23390

Buergi's table (reconstruction, D. Roegel, 2010)

	24000	24500	25000	25500	26000	26500	27000	27500
0	127123390	127760566	128400937	129044517	129691323	130341371	130994677	131651257
10	...36102	...73342	...13777	...57421	129704292	...54405	131007776	...64423
20	...48816	...86120	...26618	...70327	...17262	...67440	...20877	...77589
30	...61530	...98898	...39461	...83234	...30234	...80477	...33979	...90757
40	...74247	127811678	...52305	...96142	...43207	...93515	...47082	131703926
50	...86964	...24459	...65150	129109052	...56181	130406554	...60187	...17096
60	...99683	...37242	...77997	...21963	...69157	...19595	...73293	...30268
70	127212403	...50026	...90844	...34875	...82134	...32637	...86401	...43441
80	...25124	...62811	128503693	...47789	...95112	...45680	...99509	...56615
90	...37846	...75597	...16544	...60703	129808092	...58725	131112619	...69791
100	...50570	...88384	...29395	...73619	...21072	...71771	...25730	...82968
110	...63295	127901173	...42248	...86537	...34055	...84818	...38843	...96146
120	...76022	...13963	...55103	...99455	...47038	...97866	...51957	131809326
130	...88749	...26755	...67958	129212375	...60023	130510916	...65072	...22507
140	127301478	...39547	...80815	...25297	...73009	...23967	...78189	...35689
150	...14208	...52341	...93673	...38219	...85996	...37020	...91306	...48873
160	...26940	...65137	128606532	...51143	...98985	...50073	131204426	...62057
170	...39672	...77933	...19393	...64068	129911974	...63128	...17546	...75244
180	...52406	...90731	...32255	...76995	...24966	...76185	...30668	...88431
190	...65142	128003530	...45118	...89922	...37958	...89242	...43791	131901620
200	...77878	...16330	...57983	129302851	...50952	130602301	...56915	...14810
210	...90616	...29132	...70849	...15782	...63947	...15361	...70041	...28002
220	127403355	...41935	...83716	...28713	...76943	...28423	...83168	...41194
230	...16095	...54739	...96584	...41646	...89941	...41486	...96296	...54389
240	...28837	...67545	128709454	...54580	130002940	...54550	131309426	...67584
250	...41580	...80351	...22325	...67516	...15940	...67615	...22557	...80781
260	...54324	...93159	...35197	...80452	...28942	...80682	...35689	...93979
270	...67069	128105969	...48070	...93390	...41945	...93750	...48823	132007178
280	...79816	...18779	...60945	129406330	...54949	130706820	...61957	...20379
290	...92564	...31591	...73821	...19270	...67955	...19890	...75094	...33581
300	127505313	...44404	...86699	...32212	...80961	...32962	...88231	...46784
310	...18064	...57219	...99577	...45156	...93970	...46036	131401370	...59989
320	...30816	...70034	128812457	...58100	130106979	...59110	...14510	...73195
330	...43569	...82851	...25339	...71046	...19990	...72186	...27652	...86402
340	...56323	...95670	...38221	...83993	...33002	...85263	...40794	...99611
350	...69079	128208489	...51105	...96941	...46015	...98342	...53938	132112821
360	...81836	...21310	...63990	129509891	...59030	130811422	...67084	...26032
370	...94594	...34132	...76876	...22842	...72045	...24503	...80230	...39245
380	127607353	...46956	...89764	...35794	...85063	...37585	...93379	...52459
390	...20114	...59780	128902653	...48748	...98081	...50669	131506528	...65674
400	...32876	...72606	...15543	...61703	130211101	...63754	...19679	...78891
410	...45639	...85434	...28435	...74659	...24122	...76840	...32830	...92108
420	...58404	...98262	...41328	...87616	...37144	...89928	...45984	132205328
430	...71170	128311092	...54222	129600575	...50168	130903017	...59138	...18548
440	...83937	...23923	...67117	...13535	...63193	...16107	...72294	...31770
450	...96705	...36756	...80014	...26497	...76220	...29199	...85452	...44993
460	127709475	...49589	...92912	...39459	...89247	...42292	...98610	...58218
470	...22246	...62424	129005811	...52423	130302276	...55386	131611770	...71444
480	...35018	...75260	...18712	...65388	...15306	...68482	...24931	...84671
490	...47792	...88098	...31614	...78355	...28338	...81579	...38094	...97899
500	...60566	128400937	...44517	...91323	...41371	...94677	...51257	132311129

Buergi's table (reconstruction, D. Roegel, 2010)

	28000	28500	29000	29500	30000	30500	31000	31500
0	132311129	132974308	133640811	134310655	134983856	135660432	136340398	137023773
10	...24360	...87605	...54175	...24086	...97355	...73998	...54032	...37475
20	...37593	133000904	...67541	...37518	135010854	...87565	...67668	...51179
30	...50826	...14204	...80907	...50952	...24355	135701134	...81304	...64884
40	...64061	...27506	...94275	...64387	...37858	...14704	...94943	...78591
50	...77298	...40808	133707645	...77824	...51362	...28275	136408582	...92299
60	...90536	...54113	...21016	...91261	...64867	...41848	...22223	137106008
70	132403775	...67418	...34388	134404701	...78373	...55422	...35865	...19719
80	...17015	...80725	...47761	...18141	...91881	...68998	...49509	...33430
90	...30257	...94033	...61136	...31583	135105390	...82575	...63154	...47144
100	...43500	133107342	...74512	...45026	...18901	...96153	...76800	...60859
110	...56744	...20653	...87890	...58471	...32413	135809733	...90448	...74575
120	...69990	...33965	133801268	...71916	...45926	...23314	136504097	...88292
130	...83237	...47278	...14648	...85364	...59440	...36896	...17747	137202011
140	...96485	...60593	...28030	...98812	...72956	...50480	...31399	...15731
150	132509735	...73909	...41413	134512262	...86474	...64065	...45052	...29453
160	...22986	...87227	...54797	...25713	...99992	...77651	...58707	...43176
170	...36238	133200545	...68182	...39166	135213512	...91239	...72362	...56900
180	...49492	...13865	...81569	...52620	...27034	135904828	...86020	...70626
190	...62747	...27187	...94957	...66075	...40556	...18419	...99678	...84353
200	...76003	...40509	133908347	...79532	...54080	...32010	136613338	...98081
210	...89260	...53834	...21738	...92990	...67606	...45604	...27000	137311811
220	132602519	...67159	...35130	134606449	...81133	...59198	...40662	...25542
230	...15780	...80486	...48523	...19909	...94661	...72794	...54326	...39275
240	...29041	...93814	...61918	...33371	135308190	...86391	...67992	...53009
250	...42304	133307143	...75314	...46835	...21721	...99990	...81659	...66744
260	...55568	...20474	...88712	...60299	...35253	136013590	...95327	...80481
270	...68834	...33806	134002111	...73765	...48787	...27191	136708996	...94219
280	...82101	...47139	...15511	...87233	...62322	...40794	...22667	137407958
290	...95369	...60474	...28913	134700702	...75858	...54398	...36339	...21699
300	132708638	...73810	...42315	...14172	...89395	...68004	...50013	...35441
310	...21909	...87147	...55720	...27643	135402934	...81610	...63688	...49185
320	...35182	133400486	...69125	...41116	...16475	...95219	...77364	...62929
330	...48455	...13826	...82532	...54590	...30016	136108828	...91042	...76676
340	...61730	...27167	...95940	...68065	...43559	...22439	136804721	...90423
350	...75006	...40510	134109350	...81542	...57104	...36051	...18402	137504172
360	...88284	...53854	...22761	...95020	...70649	...49665	...32084	...17923
370	132801562	...67200	...36173	134808500	...84196	...63280	...45767	...31675
380	...14843	...80546	...49587	...21981	...97745	...76896	...59451	...45428
390	...28124	...93894	...63002	...35463	135511295	...90514	...73137	...59182
400	...41407	133507244	...76418	...48946	...24846	136204133	...86825	...72938
410	...54691	...20595	...89836	...62431	...38398	...17753	136900513	...86696
420	...67976	...33947	134203255	...75918	...51952	...31375	...14203	137600454
430	...81263	...47300	...16675	...89405	...65507	...44998	...27895	...14214
440	...94551	...60655	...30097	134902894	...79064	...58623	...41588	...27976
450	132907841	...74011	...43520	...16384	...92622	...72249	...55282	...41739
460	...21132	...87368	...56944	...29876	135606181	...85876	...68977	...55503
470	...34424	133600727	...70370	...43369	...19742	...99504	...82674	...69268
480	...47717	...14087	...83797	...56863	...33304	136313134	...96372	...83035
490	...61012	...27448	...97225	...70359	...46867	...26766	137010072	...96804
500	...74308	...40811	134310655	...83856	...60432	...40398	...23773	137710573

Buergi's table (reconstruction, D. Roegel, 2010)

	32000	32500	33000	33500	34000	34500	35000	35500
0	137710573	138400816	139094518	139791697	140492371	141196556	141904272	142615534
10	...24344	...14656	139108427	139805676	140506420	141210676	...18462	...29796
20	...38117	...28497	...22338	...19657	...20471	...24797	...32654	...44059
30	...51890	...42340	...36250	...33639	...34523	...38920	...46847	...58323
40	...65666	...56184	...50164	...47622	...48576	...53044	...61042	...72589
50	...79442	...70030	...64079	...61607	...62631	...67169	...75238	...86856
60	...93220	...83877	...77995	...75593	...76687	...81296	...89436	142701125
70	137807000	...97725	...91913	...89581	...90745	...95424	142003634	...15395
80	...20780	138511575	139205832	139903570	140604804	141309553	...17835	...29667
90	...34562	...25426	...19753	...17560	...18865	...23684	...32037	...43939
100	...48346	...39279	...33675	...31552	...32926	...37817	...46240	...58214
110	...62131	...53133	...47598	...45545	...46990	...51950	...60444	...72490
120	...75917	...66988	...61523	...59539	...61054	...66086	...74650	...86767
130	...89704	...80845	...75449	...73535	...75121	...80222	...88858	142801046
140	137903493	...94703	...89377	...87533	...89188	...94360	142103067	...15326
150	...17284	138608562	139303306	140001532	140703257	141408500	...17277	...29607
160	...31075	...22423	...17236	...15532	...17327	...22640	...31489	...43890
170	...44869	...36285	...31168	...29533	...31399	...36783	...45702	...58175
180	...58663	...50149	...45101	...43536	...45472	...50926	...59917	...72460
190	...72459	...64014	...59035	...57541	...59547	...65072	...74133	...86748
200	...86256	...77880	...72971	...71546	...73623	...79218	...88350	142901036
210	138000055	...91748	...86909	...85553	...87700	...93366	142202569	...15326
220	...13855	138705617	139400847	...99562	140801779	141507515	...16789	...29618
230	...27656	...19488	...14787	140113572	...15859	...21666	...31011	...43911
240	...41459	...33360	...28729	...27583	...29941	...35818	...45234	...58205
250	...55263	...47233	...42672	...41596	...44024	...49972	...59458	...72501
260	...69069	...61108	...56616	...55610	...58108	...64127	...73684	...86798
270	...82876	...74984	...70562	...69626	...72194	...78283	...87912	143001097
280	...96684	...88862	...84509	...83643	...86281	...92441	142302141	...15397
290	138110493	138802740	...98457	...97661	140900370	141606600	...16371	...29699
300	...24305	...16621	139512407	140211681	...14460	...20761	...30602	...44002
310	...38117	...30502	...26358	...25702	...28551	...34923	...44835	...58306
320	...51931	...44385	...40311	...39725	...42644	...49086	...59070	...72612
330	...65746	...58270	...54265	...53749	...56738	...63251	...73306	...86919
340	...79563	...72156	...68220	...67774	...70834	...77418	...87543	143101228
350	...93380	...86043	...82177	...81801	...84931	...91585	142401782	...15538
360	138207200	...99932	...96135	...95829	...99029	141705755	...16022	...29850
370	...21021	138913822	139610095	140309859	141013129	...19925	...30264	...44163
380	...34843	...27713	...24056	...23890	...27231	...34097	...44507	...58477
390	...48666	...41606	...38019	...37922	...41333	...48271	...58751	...72793
400	...62491	...55500	...51982	...51956	...55438	...62445	...72997	...87110
410	...76317	...69395	...65948	...65991	...69543	...76622	...87244	143201429
420	...90145	...83292	...79914	...80027	...83650	...90799	142501493	...15749
430	138303974	...97191	...93882	...94065	...97758	141804978	...15743	...30071
440	...17804	139011090	139707851	140408105	141111868	...19159	...29995	...44394
450	...31636	...24992	...21822	...22146	...25979	...33341	...44248	...58718
460	...45469	...38894	...35794	...36188	...40092	...47524	...58502	...73044
470	...59304	...52798	...49768	...50232	...54206	...61709	...72758	...87371
480	...73140	...66703	...63743	...64277	...68321	...75895	...87015	143301700
490	...86977	...80610	...77719	...78323	...82438	...90083	142601274	...16030
500	138400816	...94518	...91697	...92371	...96556	141904272	...15534	...30362

Buergi's table (reconstruction, D. Roegel, 2010)

	36000	36500	37000	37500	38000	38500	39000	39500
0	143330362	144048772	144770783	145496414	146225681	146958603	147695199	148435488
10	...44695	...63177	...85260	145510963	...40303	...73299	147709969	...50331
20	...59029	...77583	...99739	...25514	...54927	...87997	...24740	...65176
30	...73365	...91991	144814219	...40067	...69553	147002695	...39512	...80023
40	...87702	144106400	...28700	...54621	...84180	...17396	...54286	...94871
50	143402041	...20811	...43183	...69176	...98808	...32097	...69062	148509720
60	...16381	...35223	...57668	...83733	146313438	...46801	...83839	...24571
70	...30723	...49636	...72153	...98292	...28070	...61505	...98617	...39424
80	...45066	...64051	...86641	145612851	...42702	...76211	147813397	...54278
90	...59411	...78468	144901129	...27413	...57337	...90919	...28178	...69133
100	...73757	...92886	...15619	...41975	...71972	147105628	...42961	...83990
110	...88104	144207305	...30111	...56540	...86610	...20339	...57745	...98848
120	143502453	...21726	...44604	...71105	146401248	...35051	...72531	148613708
130	...16803	...36148	...59098	...85672	...15888	...49764	...87318	...28570
140	...31155	...50571	...73594	145700241	...30530	...64479	147902107	...43432
150	...45508	...64997	...88092	...14811	...45173	...79196	...16897	...58297
160	...59862	...79423	145002590	...29382	...59817	...93914	...31689	...73163
170	...74218	...93851	...17091	...43955	...74463	147208633	...46482	...88030
180	...88576	144308280	...31592	...58530	...89111	...23354	...61277	148702899
190	143602935	...22711	...46096	...73106	146503760	...38076	...76073	...17769
200	...17295	...37143	...60600	...87683	...18410	...52800	...90871	...32641
210	...31657	...51577	...75106	145802262	...33062	...67525	148005670	...47514
220	...46020	...66012	...89614	...16842	...47715	...82252	...20470	...62389
230	...60384	...80449	145104123	...31424	...62370	...96980	...35272	...77265
240	...74750	...94887	...18633	...46007	...77026	147311710	...50076	...92143
250	...89118	144409326	...33145	...60591	...91684	...26441	...64881	148807022
260	143703487	...23767	...47658	...75177	146606343	...41174	...79687	...21903
270	...17857	...38210	...62173	...89765	...21004	...55908	...94495	...36785
280	...32229	...52654	...76689	145904354	...35666	...70643	148109305	...51669
290	...46602	...67099	...91207	...18944	...50329	...85380	...24116	...66554
300	...60977	...81546	145205726	...33536	...64995	147400119	...38928	...81440
310	...75353	...95994	...20247	...48130	...79661	...14859	...53742	...96329
320	...89730	144510443	...34769	...62724	...94329	...29601	...68557	148911218
330	143804109	...24894	...49292	...77321	146708998	...44343	...83374	...26109
340	...18490	...39347	...63817	...91918	...23669	...59088	...98193	...41002
350	...32872	...53801	...78343	146006518	...38342	...73834	148213012	...55896
360	...47255	...68256	...92871	...21118	...53016	...88581	...27834	...70792
370	...61640	...82713	145307401	...35720	...67691	147503330	...42657	...85689
380	...76026	...97171	...21931	...50324	...82368	...18080	...57481	149000587
390	...90413	144611631	...36463	...64929	...97046	...32832	...72307	...15487
400	143904802	...26092	...50997	...79536	146811726	...47585	...87134	...30389
410	...19193	...40555	...65532	...94143	...26407	...62340	148301962	...45292
420	...33585	...55019	...80069	146108753	...41089	...77096	...16793	...60196
430	...47978	...69484	...94607	...23364	...55773	...91854	...31624	...75102
440	...62373	...83951	145409146	...37976	...70459	147606613	...46458	...90010
450	...76769	...98420	...23687	...52590	...85146	...21374	...61292	149104919
460	...91167	144712890	...38230	...67205	...99835	...36136	...76128	...19829
470	144005566	...27361	...52773	...81822	146914525	...50900	...90966	...34741
480	...19967	...41834	...67319	...96440	...29216	...65665	148405805	...49655
490	...34369	...56308	...81865	146211060	...43909	...80431	...20646	...64570
500	...48772	...70783	...96414	...25681	...58603	...95199	...35488	...79486

Buergi's table (reconstruction, D. Roegel, 2010)

	40000	40500	41000	41500	42000	42500	43000	43500
0	149179486	149927214	150678690	151433932	152192960	152955792	153722448	154492946
10	...94404	...42207	...93758	...49075	152208179	...71087	...37820	154508395
20	149209324	...57201	150708827	...64220	...23400	...86385	...53194	...23846
30	...24245	...72197	...23898	...79367	...38622	153001683	...68569	...39298
40	...39167	...87194	...38970	...94515	...53846	...16983	...83946	...54752
50	...54091	150002193	...54044	151509664	...69071	...32285	...99324	...70208
60	...69016	...17193	...69120	...24815	...84298	...47588	153814704	...85665
70	...83943	...32195	...84197	...39968	...99527	...62893	...30086	154601123
80	...98872	...47198	...99275	...55122	152314757	...78199	...45469	...16583
90	149313802	...62203	150814355	...70277	...29988	...93507	...60853	...32045
100	...28733	...77209	...29436	...85434	...45221	153108816	...76239	...47508
110	...43666	...92217	...44519	151600593	...60456	...24127	...91627	...62973
120	...58600	150107226	...59604	...15753	...75692	...39440	153907016	...78439
130	...73536	...22237	...74690	...30914	...90929	...54754	...22407	...93907
140	...88473	...37249	...89777	...46077	152406168	...70069	...37799	154709377
150	149403412	...52262	150904866	...61242	...21409	...85386	...53193	...24848
160	...18353	...67278	...19957	...76408	...36651	153200705	...68588	...40320
170	...33294	...82294	...35049	...91576	...51895	...16025	...83985	...55794
180	...48238	...97313	...50142	151706745	...67140	...31346	...99383	...71270
190	...63183	150212332	...65237	...21916	...82387	...46670	154014783	...86747
200	...78129	...27354	...80334	...37088	...97635	...61994	...30185	154802225
210	...93077	...42376	...95432	...52261	152512885	...77320	...45588	...17706
220	149508026	...57401	151010531	...67437	...28136	...92648	...60992	...33187
230	...22977	...72426	...25632	...82613	...43389	153307977	...76398	...48671
240	...37929	...87454	...40735	...97792	...58643	...23308	...91806	...64156
250	...52883	150302482	...55839	151812971	...73899	...38641	154107215	...79642
260	...67838	...17513	...70944	...28153	...89156	...53974	...22626	...95130
270	...82795	...32544	...86052	...43336	152604415	...69310	...38038	154910620
280	...97753	...47578	151101160	...58520	...19676	...84647	...53452	...26111
290	149612713	...62612	...16270	...73706	...34938	...99985	...68867	...41603
300	...27674	...77649	...31382	...88893	...50201	153415325	...84284	...57097
310	...42637	...92686	...46495	151904082	...65466	...30667	...99703	...72593
320	...57601	150407726	...61610	...19272	...80733	...46010	154215123	...88090
330	...72567	...22766	...76726	...34464	...96001	...61354	...30544	155003589
340	...87534	...37809	...91844	...49658	152711270	...76701	...45967	...19090
350	149702503	...52852	151206963	...64853	...26542	...92048	...61392	...34591
360	...17473	...67898	...22083	...80049	...41814	153507397	...76818	...50095
370	...32445	...82945	...37206	...95247	...57088	...22748	...92246	...65600
380	...47418	...97993	...52329	152010447	...72364	...38100	154307675	...81106
390	...62393	150513043	...67455	...25648	...87641	...53454	...23106	...96615
400	...77369	...28094	...82581	...40850	152802920	...68810	...38538	155112124
410	...92347	...43147	...97710	...56054	...18200	...84166	...53972	...27635
420	149807326	...58201	151312839	...71260	...33482	...99525	...69407	...43148
430	...22307	...73257	...27971	...86467	...48766	153614885	...84844	...58663
440	...37289	...88314	...43103	152101676	...64050	...30246	154400283	...74178
450	...52273	150603373	...58238	...16886	...79337	...45609	...15723	...89696
460	...67258	...18433	...73374	...32098	...94625	...60974	...31164	155205215
470	...82245	...33495	...88511	...47311	152909914	...76340	...46607	...20735
480	...97233	...48559	151403650	...62526	...25205	...91708	...62052	...36257
490	149912223	...63623	...18790	...77742	...40498	153707077	...77498	...51781
500	...27214	...78690	...33932	...92960	...55792	...22448	...92946	...67306

Buergi's table (reconstruction, D. Roegel, 2010)

	44000	44500	45000	45500	46000	46500	47000	47500
0	155267306	156045548	156827690	157613753	158403755	159197718	159995660	160797601
10	...82833	...61152	...43373	...29514	...19596	159213638	160011659	160813681
20	...98361	...76758	...59057	...45277	...35438	...29559	...27660	...29762
30	155313891	...92366	...74743	...61042	...51281	...45482	...43663	...45845
40	...29422	156107975	...90431	...76808	...67126	...61406	...59667	...61930
50	...44955	...23586	156906120	...92575	...82973	...77333	...75673	...78016
60	...60490	...39199	...21810	157708345	...98821	...93260	...91681	...94104
70	...76026	...54812	...37502	...24116	158514671	159309190	160107690	160910193
80	...91563	...70428	...53196	...39888	...30523	...25121	...23701	...26284
90	155407103	...86045	...68892	...55662	...46376	...41053	...39713	...42377
100	...22643	156201664	...84588	...71437	...62230	...56987	...55727	...58471
110	...38186	...17284	157000287	...87215	...78087	...72923	...71743	...74567
120	...53729	...32905	...15987	157802993	...93945	...88860	...87760	...90664
130	...69275	...48529	...31688	...18774	158609804	159404799	160203779	161006763
140	...84822	...64154	...47392	...34556	...25665	...20739	...19799	...22864
150	155500370	...79780	...63096	...50339	...41527	...36682	...35821	...38966
160	...15920	...95408	...78803	...66124	...57392	...52625	...51845	...55070
170	...31472	156311038	...94511	...81911	...73257	...68570	...67870	...71176
180	...47025	...26669	157110220	...97699	...89125	...84517	...83897	...87283
190	...62580	...42301	...25931	157913489	158704994	159500466	...99925	161103392
200	...78136	...57936	...41644	...29280	...20864	...16416	160315955	...19502
210	...93694	...73571	...57358	...45073	...36736	...32367	...31987	...35614
220	155609253	...89209	...73074	...60867	...52610	...48321	...48020	...51727
230	...24814	156404848	...88791	...76663	...68485	...64276	...64055	...67843
240	...40377	...20488	157204510	...92461	...84362	...80232	...80091	...83959
250	...55941	...36130	...20230	158008260	158800240	...96190	...96129	161200078
260	...71506	...51774	...35952	...24061	...16120	159612150	160412169	...16198
270	...87073	...67419	...51676	...39864	...32002	...28111	...28210	...32319
280	155702642	...83066	...67401	...55668	...47885	...44074	...44253	...48443
290	...18212	...98714	...83128	...71473	...63770	...60038	...60297	...64567
300	...33784	156514364	...98856	...87280	...79656	...76004	...76343	...80694
310	...49358	...30015	157314586	158103089	...95544	...91972	...92391	...96822
320	...64932	...45668	...30317	...18899	158911434	159707941	160508440	161312952
330	...80509	...61323	...46050	...34711	...27325	...23912	...24491	...29083
340	...96087	...76979	...61785	...50525	...43218	...39884	...40543	...45216
350	155811667	...92637	...77521	...66340	...59112	...55858	...56597	...61350
360	...27248	156608296	...93259	...82156	...75008	...71834	...72653	...77487
370	...42830	...23957	157408998	...97975	...90906	...87811	...88710	...93624
380	...58415	...39619	...24739	158213794	159006805	159803790	160604769	161409764
390	...74001	...55283	...40482	...29616	...22705	...19770	...20830	...25905
400	...89588	...70949	...56226	...45439	...38608	...35752	...36892	...42047
410	155905177	...86616	...71971	...61263	...54511	...51736	...52956	...58191
420	...20767	156702284	...87719	...77089	...70417	...67721	...69021	...74337
430	...36360	...17955	157503467	...92917	...86324	...83707	...85088	...90485
440	...51953	...33626	...19218	158308746	159102233	...99696	160701156	161506634
450	...67548	...49300	...34970	...24577	...18143	159915686	...17226	...22784
460	...83145	...64975	...50723	...40410	...34055	...31677	...33298	...38937
470	...98743	...80651	...66478	...56244	...49968	...47671	...49371	...55091
480	156014343	...96329	...82235	...72079	...65883	...63665	...65446	...71246
490	...29945	156812009	...97993	...87917	...81800	...79662	...81523	...87403
500	...45548	...27690	157613753	158403755	...97718	...95660	...97601	161603562

Buergi's table (reconstruction, D. Roegel, 2010)

	48000	48500	49000	49500	50000	50500	51000	51500
0	161603562	162413563	163227623	164045764	164868006	165694368	166524873	167359541
10	...19722	...29804	...43946	...62169	...84492	165710938	...41526	...76277
20	...35884	...46047	...60270	...78575	164900981	...27509	...58180	...93014
30	...52048	...62292	...76596	...94983	...17471	...44082	...74836	167409754
40	...68213	...78538	...92924	164111392	...33963	...60656	...91493	...26495
50	...84380	...94786	163309253	...27803	...50456	...77232	166608152	...43237
60	161700548	162511035	...25584	...44216	...66951	...93810	...24813	...59982
70	...16718	...27286	...41917	...60630	...83448	165810389	...41476	...76728
80	...32890	...43539	...58251	...77047	...99946	...26970	...58140	...93475
90	...49063	...59793	...74587	...93464	165016446	...43553	...74806	167510225
100	...65238	...76049	...90924	164209884	...32948	...60137	...91473	...26976
110	...81415	...92307	163407263	...26305	...49451	...76723	166708142	...43728
120	...97593	162608566	...23604	...42727	...65956	...93311	...24813	...60483
130	161813773	...24827	...39946	...59151	...82463	165909900	...41486	...77239
140	...29954	...41089	...56290	...75577	...98971	...26491	...58160	...93997
150	...46137	...57354	...72636	...92005	165115481	...43084	...74836	167610756
160	...62322	...73619	...88983	164308434	...31992	...59678	...91513	...27517
170	...78508	...89887	163505332	...24865	...48506	...76274	166808192	...44280
180	...94696	162706156	...21683	...41297	...65020	...92872	...24873	...61044
190	161910885	...22426	...38035	...57732	...81537	166009471	...41556	...77810
200	...27076	...38698	...54389	...74167	...98055	...26072	...58240	...94578
210	...43269	...54972	...70744	...90605	165214575	...42675	...74925	167711348
220	...59463	...71248	...87101	164407044	...31096	...59279	...91613	...28119
230	...75659	...87525	163603460	...23485	...47619	...75885	166908302	...44892
240	...91857	162803804	...19820	...39927	...64144	...92493	...24993	...61666
250	162008056	...20084	...36182	...56371	...80671	166109102	...41685	...78442
260	...24257	...36366	...52546	...72817	...97199	...25713	...58380	...95220
270	...40459	...52650	...68911	...89264	165313728	...42325	...75075	167812000
280	...56663	...68935	...85278	164505713	...30260	...58940	...91773	...28781
290	...72869	...85222	163701647	...22163	...46793	...75555	167008472	...45564
300	...89076	162901510	...18017	...38616	...63327	...92173	...25173	...62348
310	162105285	...17801	...34389	...55069	...79864	166208792	...41876	...79134
320	...21496	...34092	...50762	...71525	...96402	...25413	...58580	...95922
330	...37708	...50386	...67137	...87982	165412941	...42036	...75286	167912712
340	...53922	...66681	...83514	164604441	...29483	...58660	...91993	...29503
350	...70137	...82977	...99892	...20901	...46026	...75286	167108702	...46296
360	...86354	...99276	163816272	...37363	...62570	...91913	...25413	...63091
370	162202573	163015576	...32654	...53827	...79117	166308542	...42126	...79887
380	...18793	...31877	...49037	...70293	...95664	...25173	...58840	...96685
390	...35015	...48180	...65422	...86760	165512214	...41806	...75556	168013485
400	...51238	...64485	...81808	164703228	...28765	...58440	...92273	...30286
410	...67463	...80792	...98197	...19699	...45318	...75076	167208993	...47089
420	...83690	...97100	163914586	...36171	...61873	...91713	...25714	...63894
430	...99919	163113409	...30978	...52644	...78429	166408353	...42436	...80700
440	162316149	...29721	...47371	...69119	...94987	...24993	...59160	...97508
450	...32380	...46034	...63766	...85596	165611546	...41636	...75886	168114318
460	...48613	...62348	...80162	164802075	...28107	...58280	...92614	...31130
470	...64848	...78665	...96560	...18555	...44670	...74926	167309343	...47943
480	...81085	...94983	164012960	...35037	...61235	...91573	...26074	...64757
490	...97323	163211302	...29361	...51520	...77801	166508223	...42807	...81574
500	162413563	...27623	...45764	...68006	...94368	...24873	...59541	...98392

Buergi's table (reconstruction, D. Roegel, 2010)

	52000	52500	53000	53500	54000	54500	55000	55500
0	168198392	169041448	169888729	170740257	171596053	172456139	173320536	174189265
10	168215212	...58352	169905718	...57331	171613213	...73385	...37868	174206684
20	...32033	...75258	...22708	...74407	...30374	...90632	...55202	...24105
30	...48857	...92165	...39701	...91484	...47537	172507881	...72537	...41527
40	...65681	169109074	...56695	170808564	...64702	...25132	...89874	...58951
50	...82508	...25985	...73690	...25644	...81869	...42384	173407213	...76377
60	...99336	...42898	...90688	...42727	...99037	...59639	...24554	...93805
70	168316166	...59812	170007687	...59811	171716207	...76895	...41897	174311234
80	...32998	...76728	...24688	...76897	...33378	...94152	...59241	...28665
90	...49831	...93646	...41690	...93985	...50552	172611412	...76587	...46098
100	...66666	169210565	...58694	170911074	...67727	...28673	...93934	...63533
110	...83503	...27486	...75700	...28165	...84903	...45936	173511284	...80969
120	168400341	...44409	...92708	...45258	171802082	...63200	...28635	...98407
130	...17181	...61334	170109717	...62353	...19262	...80467	...45988	174415847
140	...34023	...78260	...26728	...79449	...36444	...97735	...63342	...33289
150	...50866	...95187	...43741	...96547	...53628	172715004	...80699	...50732
160	...67711	169312117	...60755	171013647	...70813	...32276	...98057	...68177
170	...84558	...29048	...77771	...30748	...88000	...49549	173615416	...85624
180	168501407	...45981	...94789	...47851	171905189	...66824	...32778	174503072
190	...18257	...62916	170211808	...64956	...22379	...84101	...50141	...20523
200	...35109	...79852	...28829	...82062	...39572	172801379	...67506	...37975
210	...51962	...96790	...45852	...99170	...56766	...18659	...84873	...55428
220	...68817	169413730	...62877	171116280	...73961	...35941	173702242	...72884
230	...85674	...30671	...79903	...33392	...91159	...53225	...19612	...90341
240	168602533	...47614	...96931	...50505	172008358	...70510	...36984	174607800
250	...19393	...64559	170313961	...67620	...25559	...87797	...54357	...25261
260	...36255	...81505	...30992	...84737	...42761	172905086	...71733	...42724
270	...53119	...98453	...48025	171201856	...59966	...22376	...89110	...60188
280	...69984	169515403	...65060	...18976	...77172	...39669	173806489	...77654
290	...86851	...32355	...82097	...36098	...94379	...56963	...23870	...95122
300	168703720	...49308	...99135	...53221	172111589	...74258	...41252	174712591
310	...20590	...66263	170416175	...70347	...28800	...91556	...58636	...30062
320	...37462	...83220	...33216	...87474	...46013	173008855	...76022	...47535
330	...54336	169600178	...50260	171304602	...63227	...26156	...93410	...65010
340	...71211	...17138	...67305	...21733	...80444	...43458	173910799	...82487
350	...88088	...34100	...84352	...38865	...97662	...60763	...28190	...99965
360	168804967	...51063	170501400	...55999	172214881	...78069	...45583	174817445
370	...21848	...68028	...18450	...73135	...32103	...95377	...62977	...34927
380	...38730	...84995	...35502	...90272	...49326	173112686	...80374	...52410
390	...55614	169701964	...52556	171407411	...66551	...29997	...97772	...69895
400	...72499	...18934	...69611	...24552	...83778	...47310	174015171	...87382
410	...89386	...35906	...86668	...41694	172301006	...64625	...32573	174904871
420	168906275	...52879	170603726	...58838	...18236	...81942	...49976	...22362
430	...23166	...69854	...20787	...75984	...35468	...99260	...67381	...39854
440	...40058	...86831	...37849	...93132	...52702	173216580	...84788	...57348
450	...56952	169803810	...54913	171510281	...69937	...33901	174102196	...74844
460	...73848	...20791	...71978	...27432	...87174	...51225	...19607	...92341
470	...90745	...37773	...89045	...44585	172404413	...68550	...37019	175009840
480	169007645	...54756	170706114	...61739	...21653	...85877	...54432	...27341
490	...24545	...71742	...23185	...78895	...38895	173303205	...71848	...44844
500	...41448	...88729	...40257	...96053	...56139	...20536	...89265	...62349

Buergi's table (reconstruction, D. Roegel, 2010)

	56000	56500	57000	57500	58000	58500	59000	59500
0	175062349	175939808	176821666	177707944	178598664	179493849	180393520	181297701
10	...79855	...57402	...39348	...25715	178616524	179511798	180411560	181315831
20	...97363	...74998	...57032	...43487	...34386	...29749	...29601	...33963
30	175114872	...92595	...74718	...61262	...52249	...47702	...47644	...52096
40	...32384	176010195	...92405	...79038	...70114	...65657	...65688	...70231
50	...49897	...27796	176910095	...96816	...87981	...83614	...83735	...88368
60	...67412	...45399	...27786	177814595	178705850	179601572	180501783	181406507
70	...84929	...63003	...45478	...32377	...23721	...19532	...19834	...24648
80	175202447	...80609	...63173	...50160	...41593	...37494	...37886	...42790
90	...19968	...98217	...80869	...67945	...59467	...55458	...55939	...60934
100	...37490	176115827	...98567	...85732	...77343	...73423	...73995	...79080
110	...55013	...33439	177016267	177903520	...95221	...91391	...92052	...97228
120	...72539	...51052	...33969	...21311	178813100	179709360	180610112	181515378
130	...90066	...68667	...51672	...39103	...30982	...27331	...28173	...33530
140	175307595	...86284	...69377	...56897	...48865	...45303	...46235	...51683
150	...25126	176203903	...87084	...74692	...66750	...63278	...64300	...69838
160	...42658	...21523	177104793	...92490	...84636	...81254	...82366	...87995
170	...60193	...39145	...22503	178010289	178902525	...99232	180700435	181606154
180	...77729	...56769	...40216	...28090	...20415	179817212	...18505	...24315
190	...95267	...74395	...57930	...45893	...38307	...35194	...36577	...42477
200	175412806	...92022	...75645	...63698	...56201	...53178	...54650	...60641
210	...30347	176309652	...93363	...81504	...74096	...71163	...72726	...78807
220	...47890	...27283	177211082	...99312	...91994	...89150	...90803	...96975
230	...65435	...44915	...28803	178117122	179009893	179907139	180808882	181715145
240	...82982	...62550	...46526	...34934	...27794	...25130	...26963	...33316
250	175500530	...80186	...64251	...52747	...45697	...43122	...45046	...51490
260	...18080	...97824	...81977	...70563	...63601	...61116	...63130	...69665
270	...35632	176415464	...99706	...88380	...81508	...79113	...81216	...87842
280	...53185	...33105	177317436	178206198	...99416	...97110	...99305	181806021
290	...70741	...50749	...35167	...24019	179117326	180015110	180917394	...24201
300	...88298	...68394	...52901	...41841	...35238	...33112	...35486	...42384
310	175605857	...86041	...70636	...59666	...53151	...51115	...53580	...60568
320	...23417	176503689	...88373	...77492	...71066	...69120	...71675	...78754
330	...40980	...21340	177406112	...95319	...88984	...87127	...89772	...96942
340	...58544	...38992	...23853	178313149	179206902	180105136	181007871	181915132
350	...76110	...56646	...41595	...30980	...24823	...23146	...25972	...33323
360	...93677	...74301	...59339	...48813	...42746	...41159	...44075	...51516
370	175711247	...91959	...77085	...66648	...60670	...59173	...62179	...69712
380	...28818	176609618	...94833	...84485	...78596	...77189	...80285	...87908
390	...46391	...27279	177512582	178402323	...96524	...95206	...98393	182006107
400	...63965	...44942	...30334	...20164	179314453	180213226	181116503	...24308
410	...81542	...62606	...48087	...38006	...32385	...31247	...34615	...42510
420	...99120	...80272	...65841	...55849	...50318	...49270	...52728	...60715
430	175816700	...97940	...83598	...73695	...68253	...67295	...70844	...78921
440	...34281	176715610	177601356	...91542	...86190	...85322	...88961	...97129
450	...51865	...33282	...19117	178509391	179404129	180303350	181207080	182115338
460	...69450	...50955	...36878	...27242	...22069	...21381	...25200	...33550
470	...87037	...68630	...54642	...45095	...40011	...39413	...43323	...51763
480	175904626	...86307	...72408	...62950	...57955	...57447	...61447	...69978
490	...22216	176803986	...90175	...80806	...75901	...75483	...79573	...88195
500	...39808	...21666	177707944	...98664	...93849	...93520	...97701	182206414

Buergi's table (reconstruction, D. Roegel, 2010)

	60000	60500	61000	61500	62000	62500	63000	63500
0	182206414	183119682	184037527	184959973	185887042	186818758	187755144	188696223
10	...24635	...37994	...55931	...78469	185905631	...37440	...73919	188715093
20	...42857	...56308	...74336	...96967	...24221	...56124	...92697	...33964
30	...61082	...74623	...92744	185015466	...42814	...74809	187811476	...52838
40	...79308	...92941	184111153	...33968	...61408	...93497	...30257	...71713
50	...97536	183211260	...29564	...52471	...80004	186912186	...49040	...90590
60	182315765	...29581	...47977	...70976	...98602	...30877	...67825	188809469
70	...33997	...47904	...66392	...89484	186017202	...49570	...86612	...28350
80	...52230	...66229	...84809	185107993	...35804	...68265	187905401	...47233
90	...70466	...84555	184203227	...26503	...54407	...86962	...24191	...66118
100	...88703	183302884	...21647	...45016	...73013	187005661	...42984	...85005
110	182406941	...21214	...40070	...63530	...91620	...24361	...61778	188903893
120	...25182	...39546	...58494	...82047	186110229	...43064	...80574	...22783
130	...43425	...57880	...76919	185200565	...28840	...61768	...99372	...41676
140	...61669	...76216	...95347	...19085	...47453	...80474	188018172	...60570
150	...79915	...94554	184313777	...37607	...66068	...99182	...36974	...79466
160	...98163	183412893	...32208	...56131	...84684	187117892	...55778	...98364
170	182516413	...31234	...50641	...74656	186203303	...36604	...74583	189017264
180	...34665	...49578	...69076	...93184	...21923	...55318	...93391	...36165
190	...52918	...67923	...87513	185311713	...40545	...74033	188112200	...55069
200	...71173	...86269	184405952	...30244	...59169	...92751	...31011	...73975
210	...89430	183504618	...24393	...48777	...77795	187211470	...49824	...92882
220	182607689	...22968	...42835	...67312	...96423	...30191	...68639	189111791
230	...25950	...41321	...61279	...85849	186315053	...48914	...87456	...30702
240	...44213	...59675	...79725	185404388	...33684	...67639	188206275	...49615
250	...62477	...78031	...98173	...22928	...52318	...86366	...25095	...68530
260	...80743	...96389	184516623	...41470	...70953	187305094	...43918	...87447
270	...99012	183614748	...35075	...60014	...89590	...23825	...62742	189206366
280	182717281	...33110	...53528	...78560	186408229	...42557	...81569	...25287
290	...35553	...51473	...71984	...97108	...26870	...61292	188300397	...44209
300	...53827	...69838	...90441	185515658	...45512	...80028	...19227	...63134
310	...72102	...88205	184608900	...34210	...64157	...98766	...38059	...82060
320	...90379	183706574	...27361	...52763	...82803	187417506	...56893	189300988
330	182808658	...24945	...45824	...71318	186501452	...36247	...75728	...19918
340	...26939	...43317	...64288	...89875	...20102	...54991	...94566	...38850
350	...45222	...61691	...82755	185608434	...38754	...73736	188413405	...57784
360	...63506	...80068	184701223	...26995	...57408	...92484	...32247	...76720
370	...81793	...98446	...19693	...45558	...76063	187511233	...51090	...95658
380	182900081	183816825	...38165	...64122	...94721	...29984	...69935	189414597
390	...18371	...35207	...56639	...82689	186613381	...48737	...88782	...33539
400	...36663	...53591	...75114	185701257	...32042	...67492	188507631	...52482
410	...54956	...71976	...93592	...19827	...50705	...86249	...26482	...71427
420	...73252	...90363	184812071	...38399	...69370	187605007	...45334	...90374
430	...91549	183908752	...30553	...56973	...88037	...23768	...64189	189509323
440	183009848	...27143	...49036	...75549	186706706	...42530	...83045	...28274
450	...28149	...45536	...67520	...94126	...25377	...61295	188601904	...47227
460	...46452	...63930	...86007	185812706	...44049	...80061	...20764	...66182
470	...64757	...82327	184904496	...31287	...62724	...98829	...39626	...85138
480	...83063	184000725	...22986	...49870	...81400	187717599	...58490	189604097
490	183101372	...19125	...41479	...68455	186800078	...36370	...77356	...23057
500	...19682	...37527	...59973	...87042	...18758	...55144	...96223	...42020

Buerger's table (reconstruction, D. Roegel, 2010)

	64000	64500	65000	65500	66000	66500	67000	67500
0	189642020	190592557	191547858	192507947	193472849	194442587	195417186	196396670
10	...60984	190611616	...67013	...27198	...92196	...62031	...36728	196416309
20	...79950	...30677	...86169	...46451	193511546	...81478	...56271	...35951
30	...98918	...49740	191605328	...65706	...30897	194500926	...75817	...55594
40	189717888	...68805	...24489	...84962	...50250	...20376	...95365	...75240
50	...36860	...87872	...43651	192604221	...69605	...39828	195514914	...94888
60	...55833	190706941	...62815	...23481	...88962	...59282	...34466	196514537
70	...74809	...26011	...81982	...42743	193608321	...78738	...54019	...34188
80	...93786	...45084	191701150	...62008	...27682	...98196	...73574	...53842
90	189812766	...64159	...20320	...81274	...47044	194617656	...93132	...73497
100	...31747	...83235	...39492	192700542	...66409	...37117	195612691	...93155
110	...50730	190802313	...58666	...19812	...85776	...56581	...32252	196612814
120	...69715	...21394	...77842	...39084	193705144	...76047	...51816	...32475
130	...88702	...40476	...97020	...58358	...24515	...95514	...71381	...52138
140	189907691	...59560	191816199	...77634	...43887	194714984	...90948	...71804
150	...26682	...78646	...35381	...96912	...63262	...34455	195710517	...91471
160	...45675	...97734	...54564	192816191	...82638	...53929	...30088	196711140
170	...64669	190916823	...73750	...35473	193802016	...73404	...49661	...30811
180	...83666	...35915	...92937	...54756	...21396	...92882	...69236	...50484
190	190002664	...55009	191912127	...74042	...40779	194812361	...88813	...70159
200	...21664	...74104	...31318	...93329	...60163	...31842	195808392	...89836
210	...40666	...93201	...50511	192912619	...79549	...51325	...27973	196809515
220	...59671	191012301	...69706	...31910	...98937	...70810	...47555	...29196
230	...78676	...31402	...88903	...51203	193918327	...90297	...67140	...48879
240	...97684	...50505	192008102	...70498	...37718	194909787	...86727	...68564
250	190116694	...69610	...27303	...89795	...57112	...29277	195906316	...88251
260	...35706	...88717	...46505	193009094	...76508	...48770	...25906	196907940
270	...54719	191107826	...65710	...28395	...95906	...68265	...45499	...27630
280	...73735	...26937	...84917	...47698	194015305	...87762	...65093	...47323
290	...92752	...46050	192104125	...67003	...34707	195007261	...84690	...67018
300	190211771	...65164	...23335	...86309	...54110	...26762	196004288	...86715
310	...30793	...84281	...42548	193105618	...73516	...46264	...23889	197006413
320	...49816	191203399	...61762	...24929	...92923	...65769	...43491	...26114
330	...68841	...22519	...80978	...44241	194112332	...85275	...63095	...45817
340	...87868	...41642	192200196	...63556	...31743	195104784	...82702	...65521
350	190306896	...60766	...19416	...82872	...51157	...24295	196102310	...85228
360	...25927	...79892	...38638	193202190	...70572	...43807	...21920	197104936
370	...44960	...99020	...57862	...21510	...89989	...63321	...41533	...24647
380	...63994	191318150	...77088	...40833	194209408	...82838	...61147	...44359
390	...83031	...37282	...96316	...60157	...28829	195202356	...80763	...64074
400	190402069	...56415	192315545	...79483	...48252	...21876	196200381	...83790
410	...21109	...75551	...34777	...98811	...67676	...41398	...20001	197203508
420	...40151	...94689	...54010	193318141	...87103	...60922	...39623	...23229
430	...59195	191413828	...73246	...37472	194306532	...80449	...59247	...42951
440	...78241	...32969	...92483	...56806	...25963	...99977	...78873	...62675
450	...97289	...52113	192411722	...76142	...45395	195319507	...98501	...82402
460	190516339	...71258	...30963	...95479	...64830	...39039	196318131	197302130
470	...35390	...90405	...50207	193414819	...84266	...58572	...37762	...21860
480	...54444	191509554	...69452	...34160	194403705	...78108	...57396	...41592
490	...73499	...28705	...88699	...53504	...23145	...97646	...77032	...61326
500	...92557	...47858	192507947	...72849	...42587	195417186	...96670	...81063

Buergi's table (reconstruction, D. Roegel, 2010)

	68000	68500	69000	69500	70000	70500	71000	71500
0	197381063	198370390	199364676	200363945	201368223	202377535	203391906	204411361
10	197400801	...90227	...84612	...83981	...88360	...97773	203412245	...31802
20	...20541	198410066	199404551	200404020	201408499	202418013	...32586	...52245
30	...40283	...29907	...24491	...24060	...28640	...38254	...52929	...72690
40	...60027	...49750	...44433	...44103	...48783	...58498	...73275	...93138
50	...79773	...69595	...64378	...64147	...68927	...78744	...93622	204513587
60	...99521	...89442	...84324	...84194	...89074	...98992	203513971	...34038
70	197519271	198509291	199504273	200504242	201509223	202519242	...34323	...54492
80	...39023	...29142	...24223	...24292	...29374	...39494	...54676	...74947
90	...58777	...48994	...44176	...44345	...49527	...59748	...75032	...95405
100	...78533	...68849	...64130	...64399	...69682	...80004	...95389	204615864
110	...98290	...88706	...84086	...84456	...89839	202600262	203615749	...36326
120	197618050	198608565	199604045	200604514	201609998	...20522	...36110	...56789
130	...37812	...28426	...24005	...24575	...30159	...40784	...56474	...77255
140	...57576	...48289	...43968	...44637	...50322	...61048	...76840	...97723
150	...77342	...68154	...63932	...64701	...70487	...81314	...97207	204718193
160	...97109	...88020	...83898	...84768	...90654	202701582	203717577	...38664
170	197716879	198707889	199703867	200704836	201710823	...21852	...37949	...59138
180	...36651	...27760	...23837	...24907	...30994	...42124	...58323	...79614
190	...56424	...47633	...43810	...44979	...51167	...62399	...78698	204800092
200	...76200	...67508	...63784	...65054	...71342	...82675	...99076	...20572
210	...95978	...87384	...83760	...85130	...91520	202802953	203819456	...41054
220	197815757	198807263	199803739	200805209	201811699	...23233	...39838	...61538
230	...35539	...27144	...23719	...25289	...31880	...43516	...60222	...82025
240	...55322	...47027	...43701	...45372	...52063	...63800	...80608	204902513
250	...75108	...66911	...63686	...65457	...72248	...84086	203900996	...23003
260	...94895	...86798	...83672	...85543	...92436	202904375	...21386	...43495
270	197914685	198906687	199903661	200905632	201912625	...24665	...41778	...63990
280	...34476	...26577	...23651	...25722	...32816	...44958	...62173	...84486
290	...54270	...46470	...43643	...45815	...53009	...65252	...82569	205004984
300	...74065	...66365	...63638	...65909	...73205	...85549	204002967	...25485
310	...93863	...86261	...83634	...86006	...93402	203005847	...23367	...45988
320	198013662	199006160	200003632	201006105	202013601	...26148	...43770	...66492
330	...33463	...26060	...23633	...26205	...33803	...46451	...64174	...86999
340	...53267	...45963	...43635	...46308	...54006	...66755	...84581	205107507
350	...73072	...65868	...63639	...66412	...74211	...87062	204104989	...28018
360	...92879	...85774	...83646	...86519	...94419	203107371	...25399	...48531
370	198112689	199105683	200103654	201106628	202114628	...27681	...45812	...69046
380	...32500	...25593	...23665	...26738	...34840	...47994	...66227	...89563
390	...52313	...45506	...43677	...46851	...55053	...68309	...86643	205210082
400	...72128	...65421	...63691	...66966	...75269	...88626	204207062	...30603
410	...91946	...85337	...83708	...87082	...95486	203208945	...27483	...51126
420	198211765	199205256	200203726	201207201	202215706	...29265	...47905	...71651
430	...31586	...25176	...23746	...27322	...35927	...49588	...68330	...92178
440	...51409	...45099	...43769	...47445	...56151	...69913	...88757	205312707
450	...71234	...65023	...63793	...67569	...76377	...90240	204309186	...33239
460	...91061	...84950	...83820	...87696	...96604	203310569	...29617	...53772
470	198310890	199304878	200303848	201307825	202316834	...30900	...50050	...74307
480	...30722	...24809	...23878	...27956	...37066	...51234	...70485	...94845
490	...50555	...44741	...43911	...48088	...57299	...71569	...90922	205415384
500	...70390	...64676	...63945	...68223	...77535	...91906	204411361	...35926

Buergi's table (reconstruction, D. Roegel, 2010)

	72000	72500	73000	73500	74000	74500	75000	75500
0	205435926	206465626	207500487	208540536	209585797	210636298	211692064	212753121
10	...56469	...86273	...21237	...61390	209606756	...57361	211713233	...74397
20	...77015	206506921	...41990	...82246	...27716	...78427	...34404	...95674
30	...97563	...27572	...62744	208603104	...48679	...99495	...55578	212816954
40	205518112	...48225	...83500	...23964	...69644	210720565	...76753	...38235
50	...38664	...68879	207604258	...44827	...90611	...41637	...97931	...59519
60	...59218	...89536	...25019	...65691	209711580	...62711	211819111	...80805
70	...79774	206610195	...45781	...86558	...32551	...83787	...40292	212902093
80	205600332	...30856	...66546	208707427	...53524	210804866	...61477	...23383
90	...20892	...51519	...87313	...28297	...74500	...25946	...82663	...44676
100	...41454	...72185	207708081	...49170	...95477	...47029	211903851	...65970
110	...62018	...92852	...28852	...70045	209816457	...68113	...25041	...87267
120	...82584	206713521	...49625	...90922	...37438	...89200	...46234	213008565
130	205703153	...34192	...70400	208811801	...58422	210910289	...67428	...29866
140	...23723	...54866	...91177	...32682	...79408	...31380	...88625	...51169
150	...44295	...75541	207811956	...53566	209900396	...52473	212009824	...72474
160	...64870	...96219	...32737	...74451	...21386	...73569	...31025	...93782
170	...85446	206816898	...53521	...95338	...42378	...94666	...52228	213115091
180	205806025	...37580	...74306	208916228	...63372	211015765	...73433	...36403
190	...26605	...58264	...95093	...37120	...84369	...36867	...94641	...57716
200	...47188	...78950	207915883	...58013	210005367	...57971	212115850	...79032
210	...67773	...99638	...36674	...78909	...26368	...79077	...37062	213200350
220	...88360	206920328	...57468	...99807	...47370	211100184	...58275	...21670
230	205908948	...41020	...78264	209020707	...68375	...21294	...79491	...42992
240	...29539	...61714	...99062	...41609	...89382	...42407	212200709	...64316
250	...50132	...82410	208019862	...62513	210110391	...63521	...21929	...85643
260	...70727	207003108	...40664	...83419	...31402	...84637	...43152	213306971
270	...91324	...23808	...61468	209104328	...52415	211205756	...64376	...28302
280	206011924	...44511	...82274	...25238	...73430	...26876	...85602	...49635
290	...32525	...65215	208103082	...46151	...94448	...47999	212306831	...70970
300	...53128	...85922	...23892	...67065	210215467	...69124	...28062	...92307
310	...73733	207106630	...44705	...87982	...36489	...90251	...49294	213413646
320	...94341	...27341	...65519	209208901	...57512	211311380	...70529	...34988
330	206114950	...48054	...86336	...29822	...78538	...32511	...91766	...56331
340	...35562	...68769	208207154	...50745	...99566	...53644	212413005	...77677
350	...56175	...89485	...27975	...71670	210320596	...74779	...34247	...99024
360	...76791	207210204	...48798	...92597	...41628	...95917	...55490	213520374
370	...97408	...30925	...69623	209313526	...62662	211417056	...76736	...41726
380	206218028	...51649	...90450	...34458	...83698	...38198	...97983	...63081
390	...38650	...72374	208311279	...55391	210404737	...59342	212519233	...84437
400	...59274	...93101	...32110	...76327	...25777	...80488	...40485	213605795
410	...79900	207313830	...52943	...97264	...46820	211501636	...61739	...27156
420	206300528	...34562	...73778	209418204	...67864	...22786	...82995	...48519
430	...21158	...55295	...94616	...39146	...88911	...43938	212604254	...69883
440	...41790	...76031	208415455	...60090	210509960	...65093	...25514	...91250
450	...62424	...96768	...36297	...81036	...31011	...86249	...46777	213712620
460	...83060	207417508	...57140	209501984	...52064	211607408	...68041	...33991
470	206403699	...38250	...77986	...22934	...73119	...28569	...89308	...55364
480	...24339	...58993	...98834	...43886	...94177	...49732	212710577	...76740
490	...44981	...79739	208519684	...64841	210615236	...70896	...31848	...98117
500	...65626	207500487	...40536	...85797	...36298	...92064	...53121	213819497

Buergi's table (reconstruction, D. Roegel, 2010)

	76000	76500	77000	77500	78000	78500	79000	79500
0	213819497	214891218	215968311	217050802	218138720	219232090	220330940	221435298
10	...40879	214912707	...89908	...72507	...60533	...54013	...52973	...57442
20	...62263	...34199	216011507	...94215	...82349	...75938	...75008	...79587
30	...83650	...55692	...33108	217115924	218204168	...97866	...97046	221501735
40	213905038	...77188	...54711	...37636	...25988	219319796	220419086	...23885
50	...26428	...98685	...76317	...59350	...47811	...41728	...41127	...46038
60	...47821	215020185	...97924	...81065	...69635	...63662	...63172	...68192
70	...69216	...41687	216119534	217202784	...91462	...85598	...85218	...90349
80	...90613	...63191	...41146	...24504	218313292	219407537	220507266	221612508
90	214012012	...84698	...62760	...46226	...35123	...29477	...29317	...34670
100	...33413	215106206	...84377	...67951	...56956	...51420	...51370	...56833
110	...54816	...27717	216205995	...89678	...78792	...73366	...73425	...78999
120	...76222	...49230	...27616	217311407	218400630	...95313	...95483	221701167
130	...97629	...70745	...49238	...33138	...22470	219517262	220617542	...23337
140	214119039	...92262	...70863	...54871	...44312	...39214	...39604	...45509
150	...40451	215213781	...92490	...76607	...66157	...61168	...61668	...67684
160	...61865	...35302	216314120	...98344	...88003	...83124	...83734	...89860
170	...83281	...56826	...35751	217420084	218509852	219605082	220705802	221812039
180	214204700	...78351	...57385	...41826	...31703	...27043	...27873	...34221
190	...26120	...99879	...79020	...63570	...53556	...49006	...49946	...56404
200	...47543	215321409	216400658	...85317	...75412	...70971	...72021	...78590
210	...68968	...42941	...22298	217507065	...97269	...92938	...94098	221900777
220	...90394	...64476	...43940	...28816	218619129	219714907	220816177	...22968
230	214311823	...86012	...65585	...50569	...40991	...36878	...38259	...45160
240	...33255	215407551	...87231	...72324	...62855	...58852	...60343	...67354
250	...54688	...29091	216508880	...94081	...84721	...80828	...82429	...89551
260	...76123	...50634	...30531	217615840	218706590	219802806	220904517	222011750
270	...97561	...72179	...52184	...37602	...28460	...24786	...26608	...33951
280	214419001	...93727	...73839	...59366	...50333	...46769	...48700	...56155
290	...40443	215515276	...95497	...81132	...72208	...68754	...70795	...78360
300	...61887	...36828	216617156	217702900	...94085	...90740	...92892	222100568
310	...83333	...58381	...38818	...24670	218815965	219912730	221014991	...22778
320	214504781	...79937	...60482	...46443	...37846	...34721	...37093	...44990
330	...26232	215601495	...82148	...68217	...59730	...56714	...59197	...67205
340	...47684	...23055	216703816	...89994	...81616	...78710	...81303	...89422
350	...69139	...44618	...25487	217811773	218903504	220000708	221103411	222211641
360	...90596	...66182	...47159	...33554	...25395	...22708	...25521	...33862
370	214612055	...87749	...68834	...55338	...47287	...44710	...47634	...56085
380	...33516	215709317	...90511	...77123	...69182	...66715	...69748	...78311
390	...54980	...30888	216812190	...98911	...91079	...88721	...91865	222300539
400	...76445	...52461	...33871	217920701	219012978	220110730	221213984	...22769
410	...97913	...74037	...55554	...42493	...34879	...32741	...36106	...45001
420	214719383	...95614	...77240	...64287	...56783	...54755	...58229	...67235
430	...40855	215817194	...98928	...86083	...78689	...76770	...80355	...89472
440	...62329	...38775	216920617	218007882	219100596	...98788	221302483	222411711
450	...83805	...60359	...42310	...29683	...22506	220220808	...24614	...33952
460	214805283	...81945	...64004	...51486	...44419	...42830	...46746	...56196
470	...26764	215903533	...85700	...73291	...66333	...64854	...68881	...78441
480	...48246	...25124	217007399	...95098	...88250	...86880	...91018	222500689
490	...69731	...46716	...29099	218116908	219210169	220308909	221413157	...22939
500	...91218	...68311	...50802	...38720	...32090	...30940	...35298	...45191

Buergi's table (reconstruction, D. Roegel, 2010)

	80000	80500	81000	81500	82000	82500	83000	83500
0	222545191	223660648	224781695	225908362	227040676	228178665	229322358	230471783
10	...67446	...83014	224804174	...30953	...63380	228201482	...45290	...94830
20	...89703	223705382	...26654	...53546	...86086	...24303	...68224	230517880
30	222611962	...27753	...49137	...76141	227108795	...47125	...91161	...40932
40	...34223	...50126	...71622	...98739	...31505	...69950	229414100	...63986
50	...56486	...72501	...94109	226021339	...54219	...92777	...37042	...87042
60	...78752	...94878	224916598	...43941	...76934	228315606	...59985	230610101
70	222701020	223817257	...39090	...66545	...99652	...38438	...82931	...33162
80	...23290	...39639	...61584	...89152	227222372	...61271	229505880	...56225
90	...45562	...62023	...84080	226111761	...45094	...84108	...28830	...79291
100	...67837	...84409	225006578	...34372	...67818	228406946	...51783	230702359
110	...90114	223906798	...29079	...56985	...90545	...29787	...74738	...25429
120	222812393	...29188	...51582	...79601	227313274	...52630	...97696	...48501
130	...34674	...51581	...74087	226202219	...36006	...75475	229620656	...71576
140	...56957	...73976	...96594	...24839	...58739	...98322	...43618	...94653
150	...79243	...96374	225119104	...47462	...81475	228521172	...66582	230817733
160	222901531	224018774	...41616	...70086	227404213	...44024	...89549	...40815
170	...23821	...41175	...64130	...92713	...26954	...66879	229712518	...63899
180	...46113	...63580	...86647	226315343	...49696	...89735	...35489	...86985
190	...68408	...85986	225209165	...37974	...72441	228612594	...58462	230910074
200	...90705	224108394	...31686	...60608	...95189	...35456	...81438	...33165
210	223013004	...30805	...54209	...83244	227517938	...58319	229804416	...56258
220	...35305	...53218	...76735	226405882	...40690	...81185	...27397	...79354
230	...57609	...75634	...99262	...28523	...63444	228704053	...50380	231002452
240	...79915	...98051	225321792	...51166	...86200	...26924	...73365	...25552
250	223102223	224220471	...44325	...73811	227608959	...49796	...96352	...48654
260	...24533	...42893	...66859	...96458	...31720	...72671	229919342	...71759
270	...46845	...65317	...89396	226519108	...54483	...95549	...42334	...94867
280	...69160	...87744	225411935	...41760	...77248	228818428	...65328	231117976
290	...91477	224310173	...34476	...64414	227700016	...41310	...88324	...41088
300	223213796	...32604	...57019	...87071	...22786	...64194	230011323	...64202
310	...36117	...55037	...79565	226609729	...45558	...87081	...34324	...87318
320	...58441	...77473	225502113	...32390	...68333	228909969	...57328	231210437
330	...80767	...99910	...24663	...55054	...91110	...32860	...80333	...33558
340	223303095	224422350	...47216	...77719	227813889	...55754	230103341	...56681
350	...25425	...44792	...69770	226700387	...36670	...78649	...26352	...79807
360	...47758	...67237	...92327	...23057	...59454	229001547	...49364	231302935
370	...70093	...89684	225614886	...45729	...82240	...24447	...72379	...26065
380	...92430	224512133	...37448	...68404	227905028	...47350	...95397	...49198
390	223414769	...34584	...60012	...91081	...27819	...70254	230218416	...72333
400	...37110	...57037	...82578	226813760	...50611	...93161	...41438	...95470
410	...59454	...79493	225705146	...36441	...73406	229116071	...64462	231418610
420	...81800	224601951	...27717	...59125	...96204	...38982	...87489	...41752
430	223504148	...24411	...50289	...81811	228019003	...61896	230310517	...64896
440	...26499	...46874	...72864	226904499	...41805	...84812	...33548	...88042
450	...48851	...69338	...95442	...27189	...64609	229207731	...56582	231511191
460	...71206	...91805	225818021	...49882	...87416	...30652	...79617	...34342
470	...93563	224714274	...40603	...72577	228110225	...53575	230402655	...57496
480	223615923	...36746	...63187	...95274	...33036	...76500	...25696	...80651
490	...38284	...59220	...85773	227017974	...55849	...99428	...48738	231603809
500	...60648	...81695	225908362	...40676	...78665	229322358	...71783	...26970

Buergi's table (reconstruction, D. Roegel, 2010)

	84000	84500	85000	85500	86000	86500	87000	87500
0	231626970	232787947	233954743	235127387	236305909	237490338	238680703	239877035
10	...50132	232811225	...78138	...50900	...29539	237514087	238704571	239901023
20	...73297	...34507	234001536	...74415	...53172	...37838	...28442	...25013
30	...96465	...57790	...24936	...97932	...76808	...61592	...52315	...49006
40	231719634	...81076	...48339	235221452	236400445	...85348	...76190	...73000
50	...42806	232904364	...71743	...44974	...24085	237609107	238800067	...96998
60	...65981	...27654	...95151	...68499	...47728	...32867	...23947	240020997
70	...89157	...50947	234118560	...92025	...71372	...56631	...47830	...45000
80	231812336	...74242	...41972	235315555	...95020	...80396	...71715	...69004
90	...35517	...97540	...65386	...39086	236518669	237704164	...95602	...93011
100	...58701	233020839	...88803	...62620	...42321	...27935	238919491	240117020
110	...81887	...44141	234212221	...86156	...65975	...51708	...43383	...41032
120	231905075	...67446	...35643	235409695	...89632	...75483	...67278	...65046
130	...28266	...90753	...59066	...33236	236613291	...99260	...91174	...89063
140	...51458	233114062	...82492	...56779	...36952	237823040	239015073	240213081
150	...74654	...37373	234305920	...80325	...60616	...46823	...38975	...37103
160	...97851	...60687	...29351	235503873	...84282	...70607	...62879	...61126
170	232021051	...84003	...52784	...27423	236707950	...94394	...86785	...85153
180	...44253	233207321	...76219	...50976	...31621	237918184	239110694	240309181
190	...67457	...30642	...99657	...74531	...55294	...41976	...34605	...33212
200	...90664	...53965	234423097	...98089	...78970	...65770	...58518	...57245
210	232113873	...77290	...46539	235621648	236802648	...89566	...82434	...81281
220	...37085	233300618	...69984	...45211	...26328	238013365	239206352	240405319
230	...60298	...23948	...93431	...68775	...50011	...37167	...30273	...29360
240	...83514	...47281	234516880	...92342	...73696	...60970	...54196	...53403
250	232206733	...70615	...40332	235715911	...97383	...84776	...78122	...77448
260	...29953	...93952	...63786	...39483	236921073	238108585	239302049	240501496
270	...53176	233417292	...87242	...63057	...44765	...32396	...25980	...25546
280	...76402	...40634	234610701	...86633	...68459	...56209	...49912	...49598
290	...99629	...63978	...34162	235810212	...92156	...80025	...73847	...73653
300	232322859	...87324	...57625	...33793	237015855	238203843	...97785	...97711
310	...46092	233510673	...81091	...57376	...39557	...27663	239421724	240621771
320	...69326	...34024	234704559	...80962	...63261	...51486	...45666	...45833
330	...92563	...57377	...28030	235904550	...86967	...75311	...69611	...69897
340	232415802	...80733	...51503	...28140	237110676	...99138	...93558	...93964
350	...39044	233604091	...74978	...51733	...34387	238322968	239517507	240718034
360	...62288	...27451	...98455	...75328	...58100	...46801	...41459	...42106
370	...85534	...50814	234821935	...98926	...81816	...70635	...65413	...66180
380	232508783	...74179	...45417	236022526	237205534	...94472	...89370	...90256
390	...32033	...97547	...68902	...46128	...29255	238418312	239613329	240814335
400	...55287	233720916	...92389	...69733	...52978	...42154	...37290	...38417
410	...78542	...44289	234915878	...93340	...76703	...65998	...61254	...62501
420	232601800	...67663	...39370	236116949	237300431	...89845	...85220	...86587
430	...25060	...91040	...62863	...40561	...24161	238513694	239709188	240910676
440	...48323	233814419	...86360	...64175	...47893	...37545	...33159	...34767
450	...71588	...37800	235009858	...87791	...71628	...61399	...57133	...58860
460	...94855	...61184	...33359	236211410	...95365	...85255	...81108	...82956
470	232718124	...84570	...56863	...35031	237419105	238609113	239805087	241007054
480	...41396	233907959	...80368	...58655	...42847	...32974	...29067	...31155
490	...64670	...31349	235103876	...82280	...66591	...56838	...53050	...55258
500	...87947	...54743	...27387	236305909	...90338	...80703	...77035	...79364

Buergi's table (reconstruction, D. Roegel, 2010)

	88000	88500	89000	89500	90000	90500	91000	91500
0	241079364	242287718	243502130	244722628	245949244	247182008	248420951	249666103
10	241103472	242311947	....26480	....47100	....73839	247206726	....45793	....91070
20	....27582	....36178	....50833	....71575	....98436	....31447	....70637	249716039
30	....51695	....60412	....75188	....96052	246023036	....56170	....95484	....41011
40	....75810	....84648	....99545	244820532	....47638	....80895	248520334	....65985
50	....99927	242408886	243623905	....45014	....72243	247305624	....45186	....90961
60	241224047	....33127	....48268	....69498	....96850	....30354	....70041	249815941
70	....48170	....57371	....72632	....93985	246121460	....55087	....94898	....40922
80	....72295	....81616	....97000	244918475	....46072	....79823	248619757	....65906
90	....96422	242505865	243721369	....42967	....70687	247404561	....44619	....90893
100	241320552	....30115	....45742	....67461	....95304	....29301	....69483	249915882
110	....44684	....54368	....70116	....91958	246219923	....54044	....94350	....40874
120	....68818	....78624	....94493	245016457	....44545	....78789	248719220	....65868
130	....92955	242602881	243818873	....40958	....69170	247503537	....44092	....90864
140	241417094	....27142	....43254	....65463	....93797	....28288	....68966	250015863
150	....41236	....51404	....67639	....89969	246318426	....53040	....93843	....40865
160	....65380	....75670	....92026	245114478	....43058	....77796	248818722	....65869
170	....89527	....99937	243916415	....38990	....67692	247602554	....43604	....90876
180	241513676	242724207	....40806	....63503	....92329	....27314	....68489	250115885
190	....37827	....48480	....65200	....88020	246416968	....52077	....93376	....40896
200	....61981	....72754	....89597	245212539	....41610	....76842	248918265	....65910
210	....86137	....97032	244013996	....37060	....66254	247701609	....43157	....90927
220	241610295	242821311	....38397	....61584	....90901	....26380	....68051	250215946
230	....34457	....45594	....62801	....86110	246515550	....51152	....92948	....40968
240	....58620	....69878	....87207	245310638	....40201	....75927	249017847	....65992
250	....82786	....94165	244111616	....35169	....64855	247800705	....42749	....91018
260	241706954	242918455	....36027	....59703	....89512	....25485	....67653	250316047
270	....31125	....42746	....60441	....84239	246614171	....50268	....92560	....41079
280	....55298	....67041	....84857	245408777	....38832	....75053	249117469	....66113
290	....79473	....91337	244209275	....33318	....63496	....99840	....42381	....91150
300	241803651	243015636	....33696	....57862	....88162	247924630	....67295	250416189
310	....27832	....39938	....58120	....82407	246712831	....49423	....92212	....41230
320	....52015	....64242	....82546	245506956	....37503	....74217	249217131	....66275
330	....76200	....88548	244306974	....31506	....62176	....99015	....42053	....91321
340	241900387	243112857	....31405	....56059	....86853	248023815	....66977	250516370
350	....24577	....37169	....55838	....80615	246811531	....48617	....91904	....41422
360	....48770	....61482	....80273	245605173	....36212	....73422	249316833	....66476
370	....72965	....85798	244404711	....29734	....60896	....98229	....41765	....91533
380	....97162	243210117	....29152	....54297	....85582	248123039	....66699	250616592
390	242021362	....34438	....53595	....78862	246910271	....47852	....91635	....41654
400	....45564	....58762	....78040	245703430	....34962	....72666	249416575	....66718
410	....69768	....83087	244502488	....28000	....59655	....97484	....41516	....91784
420	....93975	243307416	....26938	....52573	....84351	248222303	....66460	250716854
430	242118185	....31746	....51391	....77148	247009050	....47126	....91407	....41925
440	....42397	....56080	....75846	245801726	....33751	....71950	249516356	....66999
450	....66611	....80415	244600303	....26306	....58454	....96777	....41308	....92076
460	....90828	243404753	....24764	....50889	....83160	248321607	....66262	250817155
470	242215047	....29094	....49226	....75474	247107868	....46439	....91219	....42237
480	....39268	....53437	....73691	245900061	....32579	....71274	249616178	....67321
490	....63492	....77782	....98158	....24651	....57292	....96111	....41139	....92408
500	....87718	243502130	244722628	....49244	....82008	248420951	....66103	250917497

Buergi's table (reconstruction, D. Roegel, 2010)

	92000	92500	93000	93500	94000	94500	95000	95500
0	250917497	252175163	253439133	254709439	255986111	257269182	258558685	259854651
10	...42589	252200381	...64477	...34910	256011710	...94909	...84541	...80636
20	...67683	...25601	...89824	...60383	...37311	257320639	258610399	259906624
30	...92780	...50824	253515173	...85859	...62915	...46371	...36260	...32615
40	251017879	...76049	...40524	254811338	...88521	...72106	...62124	...58608
50	...42981	252301276	...65878	...36819	256114130	...97843	...87990	...84604
60	...68085	...26506	...91235	...62302	...39741	257423583	258713859	260010603
70	...93192	...51739	253616594	...87789	...65355	...49325	...39730	...36604
80	251118302	...76974	...41956	254913278	...90972	...75070	...65604	...62607
90	...43413	252402212	...67320	...38769	256216591	257500817	...91481	...88614
100	...68528	...27452	...92687	...64263	...42212	...26567	258817360	260114622
110	...93645	...52695	253718056	...89759	...67837	...52320	...43242	...40634
120	251218764	...77940	...43428	255015258	...93463	...78075	...69126	...66648
130	...43886	252503188	...68802	...40760	256319093	257603833	...95013	...92665
140	...69010	...28438	...94179	...66264	...44725	...29593	258920902	260218684
150	...94137	...53691	253819558	...91770	...70359	...55356	...46795	...44706
160	251319267	...78946	...44940	255117280	...95996	...81122	...72689	...70730
170	...44398	252604204	...70325	...42791	256421636	257706890	...98587	...96757
180	...69533	...29465	...95712	...68306	...47278	...32661	259024486	260322787
190	...94670	...54728	253921101	...93822	...72923	...58434	...50389	...48819
200	251419809	...79993	...46493	255219342	...98570	...84210	...76294	...74854
210	...44951	252705261	...71888	...44864	256524220	257809988	259102201	260400892
220	...70096	...30532	...97285	...70388	...49872	...35769	...28112	...26932
230	...95243	...55805	254022685	...95915	...75527	...61553	...54025	...52974
240	251520392	...81080	...48087	255321445	256601185	...87339	...79940	...79020
250	...45544	252806358	...73492	...46977	...26845	257913128	259205858	260505068
260	...70699	...31639	...98899	...72512	...52508	...38919	...31778	...31118
270	...95856	...56922	254124309	...98049	...78173	...64713	...57702	...57171
280	251621016	...82208	...49722	255423589	256703841	...90509	...83627	...83227
290	...46178	252907496	...75137	...49131	...29511	258016308	259309556	260609285
300	...71342	...32787	254200554	...74676	...55184	...42110	...35487	...35346
310	...96509	...58080	...25974	255500223	...80859	...67914	...61420	...61410
320	251721679	...83376	...51397	...25773	256806538	...93721	...87356	...87476
330	...46851	253008674	...76822	...51326	...32218	258119531	259413295	260713545
340	...72026	...33975	254302250	...76881	...57901	...45342	...39237	...39616
350	...97203	...59279	...27680	255602439	...83587	...71157	...65180	...65690
360	251822383	...84585	...53113	...27999	256909276	...96974	...91127	...91766
370	...47565	253109893	...78548	...53562	...34966	258222794	259517076	260817846
380	...72750	...35204	254403986	...79127	...60660	...48616	...43028	...43927
390	...97937	...60518	...29426	255704695	...86356	...74441	...68982	...70012
400	251923127	...85834	...54869	...30266	257012055	258300268	...94939	...96099
410	...48319	253211152	...80315	...55839	...37756	...26098	259620898	260922188
420	...73514	...36473	254505763	...81414	...63460	...51931	...46861	...48281
430	...98711	...61797	...31213	255806992	...89166	...77766	...72825	...74375
440	252023911	...87123	...56666	...32573	257114875	258403604	...98793	261000473
450	...49114	253312452	...82122	...58156	...40586	...29444	259724762	...26573
460	...74319	...37783	254607580	...83742	...66300	...55287	...50735	...52676
470	...99526	...63117	...33041	255909331	...92017	...81133	...76710	...78781
480	252124736	...88453	...58504	...34921	257217736	258506981	259802688	261104889
490	...49948	253413792	...83970	...60515	...43458	...32832	...28668	...30999
500	...75163	...39133	254709439	...86111	...69182	...58685	...54651	...57112

Buergi's table (reconstruction, D. Roegel, 2010)

	96000	96500	97000	97500	98000	98500	99000	99500
0	261157112	262466102	263781653	265103798	266432570	267768001	269110127	270458979
10	...83228	...92349	263808031	...30308	...59213	...94778	...37038	...86025
20	261209346	262518598	...34412	...56821	...85859	267821558	...63952	270513074
30	...35467	...44850	...60795	...83337	266512507	...48340	...90868	...40125
40	...61591	...71104	...87182	265209855	...39159	...75125	269217787	...67179
50	...87717	...97361	263913570	...36376	...65812	267901912	...44709	...94236
60	261313846	262623621	...39962	...62900	...92469	...28702	...71633	270621295
70	...39977	...49884	...66356	...89426	266619128	...55495	...98560	...48357
80	...66111	...76149	...92752	265315955	...45790	...82291	269325490	...75422
90	...92248	262702416	264019152	...42487	...72455	268009089	...52423	270702490
100	261418387	...28686	...45553	...69021	...99122	...35890	...79358	...29560
110	...44529	...54959	...71958	...95558	266725792	...62694	269406296	...56633
120	...70673	...81235	...98365	265422097	...52465	...89500	...33237	...83709
130	...96820	262807513	264124775	...48640	...79140	268116309	...60180	270810787
140	261522970	...33794	...51188	...75184	266805818	...43120	...87126	...37868
150	...49122	...60077	...77603	265501732	...32498	...69935	269514075	...64952
160	...75277	...86363	264204020	...28282	...59182	...96752	...41026	...92038
170	261601435	262912652	...30441	...54835	...85867	268223571	...67980	270919128
180	...27595	...38943	...56864	...81390	266912556	...50394	...94937	...46220
190	...53758	...65237	...83290	265607949	...39247	...77219	269621897	...73314
200	...79923	...91533	264309718	...34509	...65941	268304046	...48859	271000411
210	261706091	263017833	...36149	...61073	...92638	...30877	...75824	...27512
220	...32262	...44134	...62582	...87639	267019337	...57710	269702791	...54614
230	...58435	...70439	...89019	265714208	...46039	...84546	...29761	...81720
240	...84611	...96746	264415458	...40779	...72744	268411384	...56734	271108828
250	261810789	263123055	...41899	...67353	...99451	...38225	...83710	...35939
260	...36970	...49368	...68343	...93930	267126161	...65069	269810688	...63052
270	...63154	...75683	...94790	265820509	...52873	...91916	...37670	...90169
280	...89340	263202000	264521240	...47091	...79589	268518765	...64653	271217288
290	261915529	...28320	...47692	...73676	267206307	...45617	...91640	...44409
300	...41721	...54643	...74147	265900264	...33027	...72471	269918629	...71534
310	...67915	...80969	264600604	...26854	...59751	...99329	...45621	...98661
320	...94112	263307297	...27064	...53446	...86477	268626188	...72615	271325791
330	262020311	...33628	...53527	...80042	267313205	...53051	...99613	...52923
340	...46513	...59961	...79992	266006640	...39937	...79916	270026613	...80059
350	...72718	...86297	264706460	...33240	...66671	268706784	...53615	271407197
360	...98925	263412636	...32931	...59844	...93407	...33655	...80621	...34338
370	262125135	...38977	...59404	...86450	267420147	...60528	270107629	...61481
380	...51348	...65321	...85880	266113058	...46889	...87404	...34639	...88627
390	...77563	...91667	264812359	...39669	...73633	268814283	...61653	271515776
400	262203780	263518016	...38840	...66283	267500381	...41165	...88669	...42928
410	...30001	...44368	...65324	...92900	...27131	...68049	270215688	...70082
420	...56224	...70723	...91810	266219519	...53883	...94936	...42710	...97239
430	...82449	...97080	264918299	...46141	...80639	268921825	...69734	271624399
440	262308678	263623439	...44791	...72766	267607397	...48717	...96761	...51561
450	...34909	...49802	...71286	...99393	...34158	...75612	270323790	...78726
460	...61142	...76167	...97783	266326023	...60921	269002510	...50823	271705894
470	...87378	263702534	265024283	...52656	...87687	...29410	...77858	...33065
480	262413617	...28905	...50785	...79291	267714456	...56313	270404896	...60238
490	...39858	...55278	...77290	266405929	...41227	...83219	...31936	...87414
500	...66102	...81653	265103798	...32570	...68001	269110127	...58979	271814593

Buergi's table (reconstruction, D. Roegel, 2010)

	100000	100500	101000	101500	102000	102500	103000	103500
0	271814593	273177001	274546237	275922337	277305334	278695264	280092159	281496057
10	...41774	273204318	...73692	...49929	...33065	278723133	280120169	281524206
20	...68958	...31639	274601149	...77524	...60798	...51005	...48181	...52359
30	...96145	...58962	...28610	276005122	...88534	...78880	...76195	...80514
40	271923335	...86288	...56072	...32723	277416273	278806758	280204213	281608672
50	...50527	273313617	...83538	...60326	...44015	...34639	...32233	...36833
60	...77722	...40948	274711006	...87932	...71759	...62522	...60257	...64997
70	272004920	...68282	...38478	276115541	...99506	...90409	...88283	...93163
80	...32120	...95619	...65951	...43152	277527256	278918298	280316311	281721332
90	...59324	273422958	...93428	...70767	...55009	...46190	...44343	...49505
100	...86530	...50301	274820907	...98384	...82765	...74084	...72378	...77679
110	272113738	...77646	...48389	276226004	277610523	279001982	280400415	281805857
120	...40950	273504993	...75874	...53626	...38284	...29882	...28455	...34038
130	...68164	...32344	274903362	...81252	...66048	...57785	...56498	...62221
140	...95381	...59697	...30852	276308880	...93814	...85691	...84543	...90407
150	272222600	...87053	...58345	...36511	277721584	279113599	280512592	281918597
160	...49822	273614412	...85841	...64144	...49356	...41511	...40643	...46788
170	...77047	...41773	275013340	...91781	...77131	...69425	...68697	...74983
180	272304275	...69137	...40841	276419420	277804909	...97342	...96754	282003181
190	...31505	...96504	...68345	...47062	...32689	279225261	280624814	...31381
200	...58739	273723874	...95852	...74706	...60472	...53184	...52876	...59584
210	...85974	...51246	275123362	276502354	...88258	...81109	...80941	...87790
220	272413213	...78622	...50874	...30004	277916047	279309037	280709010	282115999
230	...40454	273805999	...78389	...57657	...43839	...36968	...37080	...44210
240	...67698	...33380	275205907	...85313	...71633	...64902	...65154	...72425
250	...94945	...60763	...33427	276612972	...99430	...92838	...93231	282200642
260	272522195	...88149	...60951	...40633	278027230	279420778	280821310	...28862
270	...49447	273915538	...88477	...68297	...55033	...48720	...49392	...57085
280	...76702	...42930	275316006	...95964	...82838	...76665	...77477	...85311
290	272603960	...70324	...43537	276723633	278110647	279504612	280905565	282313539
300	...31220	...97721	...71072	...51306	...38458	...32563	...33655	...41771
310	...58483	274025121	...98609	...78981	...66272	...60516	...61749	...70005
320	...85749	...52523	275426149	276806659	...94088	...88472	...89845	...98242
330	272713018	...79929	...53691	...34339	278221908	279616431	281017944	282426482
340	...40289	274107337	...81237	...62023	...49730	...44393	...46046	...54724
350	...67563	...34747	275508785	...89709	...77555	...72357	...74150	...82970
360	...94840	...62161	...36336	276917398	278305383	279700324	281102258	282511218
370	272822119	...89577	...63889	...45090	...33213	...28294	...30368	...39469
380	...49401	274216996	...91446	...72784	...61046	...56267	...58481	...67723
390	...76686	...44418	275619005	277000481	...88883	...84243	...86597	...95980
400	272903974	...71842	...46567	...28182	278416721	279812221	281214715	282624239
410	...31264	...99269	...74131	...55884	...44563	...40202	...42837	...52502
420	...58557	274326699	275701699	...83590	...72408	...68186	...70961	...80767
430	...85853	...54132	...29269	277111298	278500255	...96173	...99088	282709035
440	273013152	...81567	...56842	...39009	...28105	279924163	281327218	...37306
450	...40453	274409006	...84417	...66723	...55958	...52155	...55351	...65580
460	...67757	...36446	275811996	...94440	...83813	...80150	...83486	...93856
470	...95064	...63890	...39577	277222159	278611672	280008148	281411625	282822136
480	273122374	...91336	...67161	...49882	...39533	...36149	...39766	...50418
490	...49686	274518786	...94748	...77607	...67397	...64153	...67910	...78703
500	...77001	...46237	275922337	277305334	...95264	...92159	...96057	282906991

Buerger's table (reconstruction, D. Roegel, 2010)

	104000	104500	105000	105500	106000	106500	107000	107500
0	282906991	284324997	285750111	287182367	288621803	290068453	291522354	292983543
10	...35282	...53429	...78686	287211085	...50665	...97460	...51506	293012841
20	...63575	...81865	285807263	...39806	...79530	290126469	...80662	...42142
30	...91871	284410303	...35844	...68530	288708398	...55482	291609820	...71447
40	283020171	...38744	...64428	...97257	...37269	...84498	...38981	293100754
50	...48473	...67188	...93014	287325987	...66142	290213516	...68145	...30064
60	...76778	...95635	285921603	...54720	...95019	...42537	...97311	...59377
70	283105085	284524084	...50196	...83455	288823898	...71562	291726481	...88693
80	...33396	...52537	...78791	287412193	...52781	290300589	...55654	293218012
90	...61709	...80992	286007389	...40935	...81666	...29619	...84829	...47334
100	...90025	284609450	...35989	...69679	288910554	...58652	291814008	...76658
110	283218344	...37911	...64593	...98426	...39445	...87688	...43189	293305986
120	...46666	...66375	...93199	287527176	...68339	290416727	...72373	...35316
130	...74991	...94841	286121809	...55928	...97236	...45768	291901561	...64650
140	283303318	284723311	...50421	...84684	289026136	...74813	...30751	...93986
150	...31649	...51783	...79036	287613442	...55038	290503860	...59944	293423326
160	...59982	...80258	286207654	...42204	...83944	...32911	...89140	...52668
170	...88318	284808736	...36275	...70968	289112852	...61964	292018339	...82013
180	283416657	...37217	...64898	...99735	...41764	...91020	...47541	293511362
190	...44998	...65701	...93525	287728505	...70678	290620079	...76745	...40713
200	...73343	...94188	286322154	...57278	...99595	...49141	292105953	...70067
210	283501690	284922677	...50786	...86054	289228515	...78206	...35164	...99424
220	...30040	...51169	...79421	287814832	...57438	290707274	...64377	293628784
230	...58393	...79664	286408059	...43614	...86363	...36345	...93594	...58147
240	...86749	285008162	...36700	...72398	289315292	...65418	292222813	...87513
250	283615108	...36663	...65344	287901185	...44224	...94495	...52035	293716881
260	...43469	...65167	...93990	...29975	...73158	290823574	...81261	...46253
270	...71834	...93673	286522640	...58768	289402095	...52657	292310489	...75628
280	283700201	285122183	...51292	...87564	...31036	...81742	...39720	293805005
290	...28571	...50695	...79947	288016363	...59979	290910830	...68954	...34386
300	...56944	...79210	286608605	...45165	...88925	...39921	...98191	...63769
310	...85319	285207728	...37266	...73969	289517874	...69015	292427430	...93155
320	283813698	...36249	...65930	288102777	...46825	...98112	...56673	293922545
330	...42079	...64772	...94596	...31587	...75780	291027212	...85919	...51937
340	...70463	...93299	286723266	...60400	289604738	...56315	292515167	...81332
350	...98850	285321828	...51938	...89216	...33698	...85420	...44419	294010730
360	283927240	...50360	...80613	288218035	...62661	291114529	...73673	...40131
370	...55633	...78895	286809291	...46857	...91628	...43640	292602931	...69535
380	...84029	285407433	...37972	...75681	289720597	...72755	...32191	...98942
390	284012427	...35974	...66656	288304509	...49569	291201872	...61454	294128352
400	...40828	...64518	...95343	...33339	...78544	...30992	...90720	...57765
410	...69232	...93064	286924032	...62173	289807522	...60115	292719989	...87181
420	...97639	285521613	...52725	...91009	...36503	...89241	...49261	294216600
430	284126049	...50165	...81420	288419848	...65486	291318370	...78536	...46021
440	...54462	...78720	287010118	...48690	...94473	...47502	292807814	...75446
450	...82877	285607278	...38819	...77535	289923462	...76637	...37095	294304873
460	284211295	...35839	...67523	288506383	...52454	291405774	...66379	...34304
470	...39717	...64403	...96230	...35233	...81450	...34915	...95665	...63737
480	...68141	...92969	287124939	...64087	290010448	...64058	292924955	...93174
490	...96567	285721538	...53652	...92943	...39449	...93205	...54247	294422613
500	284324997	...50111	...82367	288621803	...68453	291522354	...83543	...52055

Buergi's table (reconstruction, D. Roegel, 2010)

	108000	108500	109000	109500	110000	110500	111000	111500
0	294452055	295927928	297411199	298901904	300400081	301905767	303419000	304939818
10	...81501	...57521	...40940	...31794	...30121	...35958	...49342	...70312
20	294510949	...87117	...70684	...61687	...60164	...66151	...79687	305000809
30	...40400	296016716	297500431	...91584	...90210	...96348	303510035	...31309
40	...69854	...46317	...30181	299021483	300520259	302026548	...40386	...61812
50	...99311	...75922	...59934	...51385	...50311	...56750	...70740	...92319
60	294628771	296105530	...89690	...81290	...80366	...86956	303601097	305122828
70	...58234	...35140	297619449	299111198	300610424	302117165	...31457	...53340
80	...87699	...64754	...49211	...41109	...40485	...47376	...61821	...83855
90	294717168	...94370	...78976	...71023	...70549	...77591	...92187	305214374
100	...46640	296223990	297708744	299200941	300700616	302207809	303722556	...44895
110	...76115	...53612	...38515	...30861	...30686	...38030	...52928	...75420
120	294805592	...83237	...68289	...60784	...60759	...68253	...83303	305305947
130	...35073	296312866	...98066	...90710	...90836	...98480	303813682	...36478
140	...64556	...42497	297827845	299320639	300820915	302328710	...44063	...67012
150	...94043	...72131	...57628	...50571	...50997	...58943	...74448	...97548
160	294923532	296401768	...87414	...80506	...81082	...89179	303904835	305428088
170	...53024	...31409	297917203	299410444	300911170	302419418	...35226	...58631
180	...82520	...61052	...46994	...40385	...41261	...49660	...65619	...89177
190	295012018	...90698	...76789	...70329	...71355	...79905	...96016	305519726
200	...41519	296520347	298006587	299500276	301001452	302510153	304026415	...50278
210	...71023	...49999	...36387	...30226	...31552	...40404	...56818	...80833
220	295100530	...79654	...66191	...60179	...61656	...70658	...87224	305611391
230	...30041	296609312	...95998	...90135	...91762	302600915	304117632	...41952
240	...59554	...38973	298125807	299620094	301121871	...31175	...48044	...72516
250	...89069	...68637	...55620	...50056	...51983	...61438	...78459	305703083
260	295218588	...98304	...85435	...80021	...82098	...91704	304208877	...33654
270	...48110	296727973	298215254	299709989	301212217	302721973	...39298	...64227
280	...77635	...57646	...45076	...39960	...42338	...52246	...69721	...94803
290	295307163	...87322	...74900	...69934	...72462	...82521	304300148	305825383
300	...36694	296817001	298304728	...99911	301302589	302812799	...30578	...55965
310	...66227	...46682	...34558	299829891	...32720	...43080	...61012	...86551
320	...95764	...76367	...64391	...59874	...62853	...73365	...91448	305917140
330	295425303	296906055	...94228	...89860	...92989	302903652	304421887	...47731
340	...54846	...35745	298424067	299919849	301423128	...33942	...52329	...78326
350	...84391	...65439	...53910	...49841	...53271	...64236	...82774	306008924
360	295513940	...95135	...83755	...79836	...83416	...94532	304513222	...39525
370	...43491	297024835	298513603	300009834	301513564	303024832	...43674	...70129
380	...73046	...54537	...43455	...39835	...43716	...55134	...74128	306100736
390	295602603	...84243	...73309	...69839	...73870	...85440	304604586	...31346
400	...32163	297113951	298603167	...99846	301604027	303115748	...35046	...61959
410	...61726	...43663	...33027	300129856	...34188	...46060	...65510	...92575
420	...91293	...73377	...62890	...59869	...64351	...76374	...95976	306223194
430	295720862	297203094	...92756	...89885	...94518	303206692	304726446	...53817
440	...50434	...32815	298722626	300219904	301724687	...37013	...56918	...84442
450	...80009	...62538	...52498	...49926	...54860	...67336	...87394	306315071
460	295809587	...92264	...82373	...79951	...85035	...97663	304817873	...45702
470	...39168	297321993	298812251	300309979	301815214	303327993	...48355	...76337
480	...68752	...51726	...42133	...40010	...45395	...58326	...78839	306406974
490	...98339	...81461	...72017	...70044	...75580	...88661	304909327	...37615
500	295927928	297411199	298901904	300400081	301905767	303419000	...39818	...68259

Buergi's table (reconstruction, D. Roegel, 2010)

	112000	112500	113000	113500	114000	114500	115000	115500
0	306468259	308004360	309548161	311099700	312659016	314226147	315801133	317384014
10	...98906	...35161	...79116	311130810	...90282	...57570	...32713	317415752
20	306529555	...65964	309610074	...61923	312721551	...88995	...64296	...47493
30	...60208	...96771	...41035	...93039	...52823	314320424	...95883	...79238
40	...90864	308127581	...71999	311224159	...84098	...51856	315927472	317510986
50	306621524	...58393	309702966	...55281	312815376	...83291	...59065	...42737
60	...52186	...89209	...33937	...86407	...46658	314414730	...90661	...74492
70	...82851	308220028	...64910	311317535	...77943	...46171	316022260	317606249
80	306713519	...50850	...95886	...48667	312909230	...77616	...53862	...38010
90	...44191	...81675	309826866	...79802	...40521	314509064	...85468	...69773
100	...74865	308312503	...57849	311410940	...71815	...40515	316117076	317701540
110	306805542	...43335	...88834	...42081	313003113	...71969	...48688	...33311
120	...36223	...74169	309919823	...73225	...34413	314603426	...80303	...65084
130	...66907	308405006	...50815	311504372	...65716	...34886	316211921	...96860
140	...97593	...35847	...81810	...35523	...97023	...66350	...43542	317828640
150	306928283	...66690	310012809	...66676	313128333	...97816	...75167	...60423
160	...58976	...97537	...43810	...97833	...59645	314729286	316306794	...92209
170	...89672	308528387	...74814	311628993	...90961	...60759	...38425	317923998
180	307020371	...59240	310105822	...60156	313222280	...92235	...70059	...55791
190	...51073	...90096	...36832	...91322	...53603	314823714	316401696	...87586
200	...81778	308620955	...67846	311722491	...84928	...55197	...33336	318019385
210	307112486	...51817	...98863	...53663	313316257	...86682	...64979	...51187
220	...43197	...82682	310229883	...84839	...47588	314918171	...96626	...82992
230	...73912	308713550	...60906	311816017	...78923	...49663	316528275	318114800
240	307204629	...44421	...91932	...47199	313410261	...81158	...59928	...46612
250	...35350	...75296	310322961	...78383	...41602	315012656	...91584	...78426
260	...66073	308806173	...53993	311909571	...72946	...44157	316623243	318210244
270	...96800	...37054	...85029	...40762	313504293	...75661	...54906	...42065
280	307327529	...67938	310416067	...71956	...35644	315107169	...86571	...73890
290	...58262	...98825	...47109	312003153	...66997	...38680	316718240	318305717
300	...88998	308929714	...78153	...34354	...98354	...70194	...49912	...37547
310	307419737	...60607	310509201	...65557	313629714	315201711	...81587	...69381
320	...50479	...91503	...40252	...96764	...61077	...33231	316813265	318401218
330	...81224	309022403	...71306	312127973	...92443	...64754	...44946	...33058
340	307511972	...53305	310602363	...59186	313723812	...96281	...76630	...64902
350	...42723	...84210	...33424	...90402	...55185	315327810	316908318	...96748
360	...73477	309115119	...64487	312221621	...86560	...59343	...40009	318528598
370	307604235	...46030	...95553	...52843	313817939	...90879	...71703	...60451
380	...34995	...76945	310726623	...84069	...49321	315422418	317003400	...92307
390	...65759	309207862	...57696	312315297	...80705	...53960	...35100	318624166
400	...96525	...38783	...88771	...46529	313912094	...85506	...66804	...56028
410	307727295	...69707	310819850	...77763	...43485	315517054	...98511	...87894
420	...58068	309300634	...50932	312409001	...74879	...48606	317130221	318719763
430	...88843	...31564	...82017	...40242	314006277	...80161	...61934	...51635
440	307819622	...62497	310913106	...71486	...37677	315611719	...93650	...83510
450	...50404	...93434	...44197	312502733	...69081	...43280	317225369	318815388
460	...81189	309424373	...75291	...33983	314100488	...74844	...57092	...47270
470	307911977	...55315	311006389	...65237	...31898	315706412	...88817	...79154
480	...42769	...86261	...37489	...96493	...63311	...37982	317320546	318911042
490	...73563	309517209	...68593	312627753	...94727	...69556	...52278	...42933
500	308004360	...48161	...99700	...59016	314226147	315801133	...84014	...74828

Buergi's table (reconstruction, D. Roegel, 2010)

	116000	116500	117000	117500	118000	118500	119000	119500
0	318974828	320573616	322180417	323795272	325418221	327049305	328688564	330336040
10	319006725	...605673	...212635	...827652	...450763	...082010	...721433	...369074
20	...038626	...637734	...244856	...860034	...483308	...114718	...754305	...402111
30	...070530	...669797	...277081	...892420	...515857	...147430	...787181	...435151
40	...102437	...701864	...309309	...924810	...548408	...180145	...820060	...468194
50	...134347	...733934	...341539	...957202	...580963	...212863	...852942	...501241
60	...166261	...766008	...373774	...989598	...613521	...245584	...885827	...534291
70	...198177	...798084	...406011	324021997	...646082	...278308	...918716	...567345
80	...230097	...830164	...438252	...054399	...678647	...311036	...951607	...600402
90	...262020	...862247	...470495	...086804	...711215	...343767	...984503	...633462
100	...293946	...894334	...502742	...119213	...743786	...376502	329017401	...666525
110	...325876	...926423	...534993	...151625	...776360	...409239	...050303	...699592
120	...357808	...958516	...567246	...184040	...808938	...441980	...083208	...732662
130	...389744	...990611	...599503	...216459	...841519	...474724	...116116	...765735
140	...421683	321022711	...631763	...248880	...874103	...507472	...149028	...798811
150	...453625	...054813	...664026	...281305	...906690	...540223	...181943	...831891
160	...485570	...086918	...696292	...313733	...939281	...572977	...214861	...864974
170	...517519	...119027	...728562	...346165	...971875	...605734	...247782	...898061
180	...549471	...151139	...760835	...378599	326004472	...638495	...280707	...931151
190	...581426	...183254	...793111	...411037	...037073	...671258	...313635	...964244
200	...613384	...215372	...825390	...443478	...069676	...704026	...346567	...997340
210	...645345	...247494	...857673	...475923	...102283	...736796	...379501	331030440
220	...677310	...279619	...889959	...508370	...134894	...769570	...412439	...063543
230	...709277	...311747	...922248	...540821	...167507	...802347	...445380	...096649
240	...741248	...343878	...954540	...573275	...200124	...835127	...478325	...129759
250	...773222	...376012	...986835	...605732	...232744	...867910	...511273	...162872
260	...805200	...408150	323019134	...638193	...265367	...900697	...544224	...195988
270	...837180	...440291	...051436	...670657	...297994	...933487	...577178	...229108
280	...869164	...472435	...083741	...703124	...330623	...966281	...610136	...262231
290	...901151	...504582	...116049	...735594	...363257	...999077	...643097	...295357
300	...933141	...536732	...148361	...768068	...395893	328031877	...676061	...328487
310	...965134	...568886	...180676	...800545	...428532	...064680	...709029	...361619
320	...997131	...601043	...212994	...833025	...461175	...097487	...742000	...394756
330	320029131	...633203	...245315	...865508	...493821	...130297	...774974	...427895
340	...061134	...665366	...277640	...897994	...526471	...163110	...807952	...461038
350	...093140	...697533	...309968	...930484	...559123	...195926	...840932	...494184
360	...125149	...729703	...342299	...962977	...591779	...228745	...873916	...527333
370	...157161	...761875	...374633	...995474	...624439	...261568	...906904	...560486
380	...189177	...794052	...406970	325027973	...657101	...294394	...939894	...593642
390	...221196	...826231	...439311	...060476	...689767	...327224	...972888	...626802
400	...253218	...858414	...471655	...092982	...722436	...360057	330005886	...659964
410	...285244	...890600	...504002	...125491	...755108	...392893	...038886	...693130
420	...317272	...922789	...536352	...158004	...787783	...425732	...071890	...726300
430	...349304	...954981	...568706	...190520	...820462	...458575	...104897	...759472
440	...381339	...987176	...601063	...223039	...853144	...491420	...137908	...792648
450	...413377	322019375	...633423	...255561	...885830	...524270	...170922	...825827
460	...445418	...051577	...665786	...288087	...918518	...557122	...203939	...859010
470	...477463	...083782	...698153	...320615	...951210	...589978	...236959	...892196
480	...509511	...115991	...730523	...353147	...983905	...622837	...269983	...925385
490	...541561	...148202	...762896	...385683	327016604	...655699	...303010	...958578
500	...573616	...180417	...795272	...418221	...049305	...688564	...336040	...991773

Buergi's table (reconstruction, D. Roegel, 2010)

	120000	120500	121000	121500	122000	122500	123000	123500
0	331991773	333655806	335328179	337008934	338698114	340395760	342101915	343816622
10	332024973	...689171	...361711	...042635	...731983	...429799	...136125	...851004
20	...058175	...722540	...395248	...076339	...765857	...463842	...170339	...885389
30	...091381	...755913	...428787	...110047	...799733	...497889	...204556	...919777
40	...124590	...789288	...462330	...143758	...833613	...531939	...238776	...954169
50	...157803	...822667	...495876	...177472	...867496	...565992	...273000	...988565
60	...191018	...856049	...529426	...211190	...901383	...600048	...307228	344022964
70	...224237	...889435	...562979	...244911	...935273	...634108	...341458	...057366
80	...257460	...922824	...596535	...278635	...969167	...668172	...375692	...091772
90	...290686	...956216	...630095	...312363	339003064	...702239	...409930	...126181
100	...323915	...989612	...663658	...346095	...036964	...736309	...444171	...160594
110	...357147	334023011	...697224	...379829	...070868	...770382	...478415	...195010
120	...390383	...056413	...730794	...413567	...104775	...804459	...512663	...229429
130	...423622	...089819	...764367	...447308	...138685	...838540	...546915	...263852
140	...456864	...123228	...797943	...481053	...172599	...872624	...581169	...298278
150	...490110	...156640	...831523	...514801	...206516	...906711	...615427	...332708
160	...523359	...190056	...865106	...548553	...240437	...940802	...649689	...367142
170	...556611	...223475	...898693	...582308	...274361	...974896	...683954	...401578
180	...589867	...256897	...932283	...616066	...308289	341008993	...718222	...436018
190	...623126	...290323	...965876	...649827	...342219	...043094	...752494	...470462
200	...656388	...323752	...999473	...683592	...376154	...077198	...786769	...504909
210	...689654	...357184	336033072	...717361	...410091	...111306	...821048	...539360
220	...722923	...390620	...066676	...751133	...444032	...145417	...855330	...573813
230	...756195	...424059	...100282	...784908	...477977	...179532	...889616	...608271
240	...789471	...457501	...133892	...818686	...511924	...213650	...923905	...642732
250	...822750	...490947	...167506	...852468	...545876	...247771	...958197	...677196
260	...856032	...524396	...201123	...886253	...579830	...281896	...992493	...711664
270	...889318	...557849	...234743	...920042	...613788	...316024	343026792	...746135
280	...922606	...591304	...268366	...953834	...647750	...350156	...061095	...780609
290	...955899	...624763	...301993	...987629	...681714	...384291	...095401	...815088
300	...989194	...658226	...335623	338021428	...715683	...418429	...129710	...849569
310	333022493	...691692	...369257	...055230	...749654	...452571	...164023	...884054
320	...055795	...725161	...402894	...089036	...783629	...486716	...198340	...918542
330	...089101	...758633	...436534	...122845	...817607	...520865	...232660	...953034
340	...122410	...792109	...470178	...156657	...851589	...555017	...266983	...987530
350	...155722	...825589	...503825	...190473	...885574	...589173	...301310	345022028
360	...189038	...859071	...537475	...224292	...919563	...623331	...335640	...056530
370	...222357	...892557	...571129	...258114	...953555	...657494	...369973	...091036
380	...255679	...926046	...604786	...291940	...987550	...691660	...404310	...125545
390	...289005	...959539	...638446	...325769	340021549	...725829	...438651	...160058
400	...322333	...993035	...672110	...359602	...055551	...760001	...472995	...194574
410	...355666	335026534	...705777	...393438	...089557	...794177	...507342	...229093
420	...389001	...060037	...739448	...427277	...123566	...828357	...541693	...263616
430	...422340	...093543	...773122	...461120	...157578	...862540	...576047	...298143
440	...455682	...127052	...806799	...494966	...191594	...896726	...610404	...332672
450	...489028	...160565	...840480	...528815	...225613	...930915	...644765	...367206
460	...522377	...194081	...874164	...562668	...259636	...965109	...679130	...401742
470	...555729	...227600	...907851	...596524	...293661	...999305	...713498	...436283
480	...589085	...261123	...941542	...630384	...327691	342033505	...747869	...470826
490	...622444	...294649	...975236	...664247	...361724	...067708	...782244	...505373
500	...655806	...328179	337008934	...698114	...395760	...101915	...816622	...539924

Buergi's table (reconstruction, D. Roegel, 2010)

	124000	124500	125000	125500	126000	126500	127000	127500
0	345539924	347271863	349012483	350761828	352519941	354286866	356062647	357847329
10	...574478	...306590	...047384	...796904	...555193	...322294	...098253	...883114
20	...609035	...341321	...082289	...831984	...590448	...357727	...133863	...918902
30	...643596	...376055	...117197	...867067	...625707	...393162	...169477	...954694
40	...678160	...410793	...152109	...902154	...660970	...428602	...205093	...990489
50	...712728	...445534	...187024	...937244	...696236	...464045	...240714	358026288
60	...747300	...480278	...221943	...972338	...731506	...499491	...276338	...062091
70	...781874	...515026	...256865	351007435	...766779	...534941	...311966	...097897
80	...816452	...549778	...291791	...042536	...802055	...570394	...347597	...133707
90	...851034	...584533	...326720	...077640	...837336	...605852	...383232	...169520
100	...885619	...619291	...361653	...112748	...872619	...641312	...418870	...205337
110	...920208	...654053	...396589	...147859	...907907	...676776	...454512	...241158
120	...954800	...688819	...431529	...182974	...943197	...712244	...490157	...276982
130	...989395	...723587	...466472	...218092	...978492	...747715	...525806	...312810
140	346023994	...758360	...501418	...253214	353013790	...783190	...561459	...348641
150	...058597	...793136	...536369	...288339	...049091	...818668	...597115	...384476
160	...093202	...827915	...571322	...323468	...084396	...854150	...632775	...420314
170	...127812	...862698	...606279	...358600	...119704	...889635	...668438	...456156
180	...162425	...897484	...641240	...393736	...155016	...925124	...704105	...492002
190	...197041	...932274	...676204	...428876	...190332	...960617	...739775	...527851
200	...231661	...967067	...711172	...464018	...225651	...996113	...775449	...563704
210	...266284	348001864	...746143	...499165	...260973	355031613	...811127	...599560
220	...300910	...036664	...781117	...534315	...296299	...067116	...846808	...635420
230	...335540	...071468	...816096	...569468	...331629	...102623	...882493	...671284
240	...370174	...106275	...851077	...604625	...366962	...138133	...918181	...707151
250	...404811	...141085	...886062	...639786	...402299	...173647	...953873	...743022
260	...439451	...175899	...921051	...674950	...437639	...209164	...989568	...778896
270	...474095	...210717	...956043	...710117	...472983	...244685	357025267	...814774
280	...508743	...245538	...991039	...745288	...508330	...280209	...060970	...850655
290	...543394	...280363	350026038	...780463	...543681	...315737	...096676	...886540
300	...578048	...315191	...061040	...815641	...579035	...351269	...132385	...922429
310	...612706	...350022	...096046	...850822	...614393	...386804	...168099	...958321
320	...647367	...384857	...131056	...886007	...649755	...422343	...203815	...994217
330	...682032	...419696	...166069	...921196	...685120	...457885	...239536	359030117
340	...716700	...454538	...201086	...956388	...720488	...493431	...275260	...066020
350	...751372	...489383	...236106	...991584	...755860	...528980	...310987	...101926
360	...786047	...524232	...271129	352026783	...791236	...564533	...346718	...137836
370	...820725	...559084	...306157	...061985	...826615	...600089	...382453	...173750
380	...855408	...593940	...341187	...097192	...861998	...635649	...418191	...209668
390	...890093	...628800	...376221	...132401	...897384	...671213	...453933	...245589
400	...924782	...663663	...411259	...167615	...932774	...706780	...489678	...281513
410	...959475	...698529	...446300	...202831	...968167	...742351	...525427	...317441
420	...994171	...733399	...481345	...238052	354003564	...777925	...561180	...353373
430	347028870	...768272	...516393	...273275	...038964	...813503	...596936	...389308
440	...063573	...803149	...551444	...308503	...074368	...849084	...632696	...425247
450	...098279	...838029	...586500	...343734	...109775	...884669	...668459	...461190
460	...132989	...872913	...621558	...378968	...145186	...920258	...704226	...497136
470	...167702	...907800	...656620	...414206	...180601	...955850	...739996	...533086
480	...202419	...942691	...691686	...449447	...216019	...991445	...775770	...569039
490	...237139	...977585	...726755	...484692	...251441	356027044	...811548	...604996
500	...271863	349012483	...761828	...519941	...286866	...062647	...847329	...640956

Buergi's table (reconstruction, D. Roegel, 2010)

	128000	128500	129000	129500	130000	130500	131000	131500
0	359640956	361443574	363255226	365075960	366905819	368744850	370593098	372450611
10	...676920	...479718	...291552	...112467	...942509	...781724	...630158	...487856
20	...712888	...515866	...327881	...148978	...979204	...818602	...667221	...525105
30	...748859	...552018	...364214	...185493	367015901	...855484	...704287	...562357
40	...784834	...588173	...400550	...222012	...052603	...892370	...741358	...599613
50	...820813	...624332	...436890	...258534	...089308	...929259	...778432	...636873
60	...856795	...660494	...473234	...295060	...126017	...966152	...815510	...674137
70	...892781	...696660	...509581	...331589	...162730	369003048	...852591	...711404
80	...928770	...732830	...545932	...368123	...199446	...039949	...889676	...748676
90	...964763	...769003	...582287	...404659	...236166	...076853	...926765	...785950
100	360000759	...805180	...618645	...441200	...272890	...113760	...963858	...823229
110	...036759	...841361	...655007	...477744	...309617	...150672	371000954	...860511
120	...072763	...877545	...691373	...514292	...346348	...187587	...038055	...897797
130	...108770	...913732	...727742	...550843	...383083	...224506	...075158	...935087
140	...144781	...949924	...764114	...587398	...419821	...261428	...112266	...972381
150	...180796	...986119	...800491	...623957	...456563	...298354	...149377	373009678
160	...216814	362022317	...836871	...660519	...493309	...335284	...186492	...046979
170	...252835	...058520	...873255	...697085	...530058	...372218	...223611	...084284
180	...288861	...094726	...909642	...733655	...566811	...409155	...260733	...121592
190	...324889	...130935	...946033	...770229	...603568	...446096	...297859	...158904
200	...360922	...167148	...982427	...806806	...640328	...483040	...334989	...196220
210	...396958	...203365	364018826	...843386	...677092	...519989	...372122	...233540
220	...432998	...239585	...055228	...879971	...713860	...556941	...409260	...270863
230	...469041	...275809	...091633	...916559	...750631	...593896	...446401	...308190
240	...505088	...312037	...128042	...953150	...787406	...630856	...483545	...345521
250	...541138	...348268	...164455	...989746	...824185	...667819	...520694	...382855
260	...577193	...384503	...200872	366026344	...860967	...704786	...557846	...420194
270	...613250	...420741	...237292	...062947	...897753	...741756	...595001	...457536
280	...649312	...456983	...273715	...099553	...934543	...778730	...632161	...494882
290	...685377	...493229	...310143	...136163	...971337	...815708	...669324	...532231
300	...721445	...529478	...346574	...172777	368008134	...852690	...706491	...569584
310	...757517	...565731	...383008	...209394	...044934	...889675	...743662	...606941
320	...793593	...601988	...419447	...246015	...081739	...926664	...780836	...644302
330	...829672	...638248	...455889	...282640	...118547	...963657	...818014	...681666
340	...865755	...674512	...492334	...319268	...155359	370000653	...855196	...719034
350	...901842	...710779	...528783	...355900	...192175	...037653	...892381	...756406
360	...937932	...747050	...565236	...392536	...228994	...074657	...929571	...793782
370	...974026	...783325	...601693	...429175	...265817	...111664	...966764	...831161
380	361010123	...819603	...638153	...465818	...302643	...148675	372003960	...868545
390	...046224	...855885	...674617	...502464	...339474	...185690	...041161	...905931
400	...082329	...892171	...711084	...539115	...376307	...222709	...078365	...943322
410	...118437	...928460	...747555	...575769	...413145	...259731	...115573	...980716
420	...154549	...964753	...784030	...612426	...449986	...296757	...152784	374018114
430	...190664	363001049	...820509	...649087	...486831	...333787	...190000	...055516
440	...226784	...037350	...856991	...685752	...523680	...370820	...227219	...092922
450	...262906	...073653	...893476	...722421	...560532	...407857	...264441	...130331
460	...299032	...109961	...929966	...759093	...597389	...444898	...301668	...167744
470	...335162	...146272	...966459	...795769	...634248	...481942	...338898	...205161
480	...371296	...182586	365002955	...832449	...671112	...518991	...376132	...242581
490	...407433	...218905	...039456	...869132	...707979	...556043	...413369	...280006
500	...443574	...255226	...075960	...905819	...744850	...593098	...450611	...317434

Buergi's table (reconstruction, D. Roegel, 2010)

	132000	132500	133000	133500	134000	134500	135000	135500
0	374317434	376193614	378079197	379974232	381878766	383792845	385716518	387649833
10	...354865	...231233	...117005	380012230	...916953	...831224	...755090	...688598
20	...392301	...268856	...154817	...050231	...955145	...869607	...793665	...727367
30	...429740	...306483	...192632	...088236	...993341	...907994	...832245	...766140
40	...467183	...344114	...230452	...126245	382031540	...946385	...870828	...804916
50	...504630	...381748	...268275	...164257	...069743	...984780	...909415	...843697
60	...542080	...419386	...306102	...202274	...107950	384023178	...948006	...882481
70	...579534	...457028	...343932	...240294	...146161	...061580	...986601	...921270
80	...616992	...494674	...381767	...278318	...184375	...099987	386025199	...960062
90	...654454	...532323	...419605	...316346	...222594	...138397	...063802	...998858
100	...691920	...569976	...457447	...354377	...260816	...176810	...102408	388037658
110	...729389	...607633	...495292	...392413	...299042	...215228	...141018	...076461
120	...766862	...645294	...533142	...430452	...337272	...253650	...179633	...115269
130	...804338	...682959	...570995	...468495	...375506	...292075	...218251	...154081
140	...841819	...720627	...608852	...506542	...413743	...330504	...256872	...192896
150	...879303	...758299	...646713	...544593	...451985	...368937	...295498	...231715
160	...916791	...795975	...684578	...582647	...490230	...407374	...334128	...270538
170	...954283	...833655	...722446	...620705	...528479	...445815	...372761	...309365
180	...991778	...871338	...760319	...658767	...566732	...484259	...411398	...348196
190	375029277	...909025	...798195	...696833	...604989	...522708	...450039	...387031
200	...066780	...946716	...836075	...734903	...643249	...561160	...488684	...425870
210	...104287	...984411	...873958	...772977	...681513	...599616	...527333	...464712
220	...141797	377022109	...911846	...811054	...719782	...638076	...565986	...503559
230	...179311	...059811	...949737	...849135	...758053	...676540	...604643	...542409
240	...216829	...097517	...987632	...887220	...796329	...715008	...643303	...581264
250	...254351	...135227	379025530	...925309	...834609	...753479	...681967	...620122
260	...291876	...172941	...063433	...963401	...872892	...791955	...720636	...658984
270	...329406	...210658	...101339	381001497	...911180	...830434	...759308	...697850
280	...366939	...248379	...139249	...039598	...949471	...868917	...797984	...736719
290	...404475	...286104	...177163	...077702	...987766	...907404	...836663	...775593
300	...442016	...323832	...215081	...115809	383026065	...945894	...875347	...814471
310	...479560	...361565	...253003	...153921	...064367	...984389	...914035	...853352
320	...517108	...399301	...290928	...192036	...102674	385022887	...952726	...892237
330	...554660	...437041	...328857	...230156	...140984	...061390	...991421	...931127
340	...592215	...474784	...366790	...268279	...179298	...099896	387030120	...970020
350	...629774	...512532	...404727	...306405	...217616	...138406	...068823	389008917
360	...667337	...550283	...442667	...344536	...255938	...176920	...107530	...047818
370	...704904	...588038	...480611	...382670	...294263	...215437	...146241	...086722
380	...742474	...625797	...518559	...420809	...332593	...253959	...184956	...125631
390	...780049	...663560	...556511	...458951	...370926	...292484	...223674	...164544
400	...817627	...701326	...594467	...497097	...409263	...331014	...262397	...203460
410	...855208	...739096	...632426	...535246	...447604	...369547	...301123	...242380
420	...892794	...776870	...670390	...573400	...485949	...408084	...339853	...281305
430	...930383	...814648	...708357	...611557	...524297	...446624	...378587	...320233
440	...967976	...852429	...746327	...649718	...562650	...485169	...417325	...359165
450	376005573	...890214	...784302	...687883	...601006	...523718	...456066	...398101
460	...043174	...928003	...822281	...726052	...639366	...562270	...494812	...437041
470	...080778	...965796	...860263	...764225	...677730	...600826	...533562	...475984
480	...118386	378003593	...898249	...802401	...716098	...639386	...572315	...514932
490	...155998	...041393	...936239	...840581	...754469	...677950	...611072	...553883
500	...193614	...079197	...974232	...878766	...792845	...716518	...649833	...592839

Buergi's table (reconstruction, D. Roegel, 2010)

	136000	136500	137000	137500	138000	138500	139000	139500
0	389592839	391545583	393508115	395480484	397462739	399454929	401457105	403469316
10	...631798	...584738	...547466	...520032	...502485	...494875	...497251	...509663
20	...670761	...623896	...586821	...559584	...542235	...534824	...537400	...550014
30	...709728	...663059	...626179	...599140	...581989	...574778	...577554	...590369
40	...748699	...702225	...665542	...638700	...621748	...614735	...617712	...630728
50	...787674	...741395	...704909	...678264	...661510	...654697	...657874	...671091
60	...826653	...780569	...744279	...717832	...701276	...694662	...698039	...711458
70	...865636	...819747	...783653	...757403	...741046	...734631	...738209	...751829
80	...904622	...858929	...823032	...796979	...780820	...774605	...778383	...792205
90	...943613	...898115	...862414	...836559	...820598	...814582	...818561	...832584
100	...982607	...937305	...901800	...876142	...860380	...854564	...858743	...872967
110	390021605	...976499	...941191	...915730	...900166	...894549	...898929	...913354
120	...060607	392015696	...980585	...955322	...939956	...934539	...939118	...953746
130	...099613	...054898	394019983	...994917	...979750	...974532	...979312	...994141
140	...138623	...094103	...059385	396034517	398019548	400014530	402019510	404034541
150	...177637	...133313	...098791	...074120	...059350	...054531	...059712	...074944
160	...216655	...172526	...138201	...113727	...099156	...094537	...099918	...115351
170	...255677	...211743	...177614	...153339	...138966	...134546	...140128	...155763
180	...294702	...250965	...217032	...192954	...178780	...174559	...180342	...196179
190	...333732	...290190	...256454	...232573	...218598	...214577	...220560	...236598
200	...372765	...329419	...295879	...272197	...258420	...254598	...260782	...277022
210	...411802	...368652	...335309	...311824	...298246	...294624	...301008	...317450
220	...450844	...407888	...374743	...351455	...338075	...334653	...341239	...357881
230	...489889	...447129	...414180	...391090	...377909	...374687	...381473	...398317
240	...528938	...486374	...453621	...430729	...417747	...414724	...421711	...438757
250	...567991	...525623	...493067	...470372	...457589	...454766	...461953	...479201
260	...607047	...564875	...532516	...510019	...497435	...494811	...502199	...519649
270	...646108	...604132	...571969	...549670	...537284	...534861	...542449	...560101
280	...685173	...643392	...611427	...589325	...577138	...574914	...582704	...600557
290	...724241	...682656	...650888	...628984	...616996	...614972	...622962	...641017
300	...763314	...721925	...690353	...668647	...656857	...655033	...663224	...681481
310	...802390	...761197	...729822	...708314	...696723	...695099	...703491	...721949
320	...841470	...800473	...769295	...747985	...736593	...735168	...743761	...762421
330	...880554	...839753	...808772	...787660	...776467	...775242	...784035	...802897
340	...919642	...879037	...848253	...827339	...816344	...815319	...824314	...843378
350	...958734	...918325	...887737	...867021	...856226	...855401	...864596	...883862
360	...997830	...957617	...927226	...906708	...896111	...895486	...904883	...924350
370	391036930	...996912	...966719	...946399	...936001	...935576	...945173	...964843
380	...076034	393036212	395006216	...986093	...975895	...975669	...985468	405005339
390	...115141	...075516	...045716	397025792	399015792	401015767	403025766	...045840
400	...154253	...114823	...085221	...065494	...055694	...055869	...066069	...086344
410	...193368	...154135	...124729	...105201	...095599	...095974	...106375	...126853
420	...232488	...193450	...164242	...144912	...135509	...136084	...146686	...167366
430	...271611	...232770	...203758	...184626	...175422	...176197	...187001	...207883
440	...310738	...272093	...243279	...224345	...215340	...216315	...227319	...248403
450	...349869	...311420	...282803	...264067	...255262	...256437	...267642	...288928
460	...389004	...350751	...322331	...303793	...295187	...296562	...307969	...329457
470	...428143	...390086	...361863	...343524	...335117	...336692	...348300	...369990
480	...467286	...429425	...401400	...383258	...375050	...376826	...388634	...410527
490	...506432	...468768	...440940	...422996	...414988	...416963	...428973	...451068
500	...545583	...508115	...480484	...462739	...454929	...457105	...469316	...491613

Buergi's table (reconstruction, D. Roegel, 2010)

	140000	140500	141000	141500	142000	142500	143000	143500
0	405491613	407524046	409566667	411619525	413682673	415756163	417840045	419934372
10	...532162	...564799	...607624	...660687	...724042	...797738	...881829	...976365
20	...572716	...605555	...648584	...701853	...765414	...839318	...923617	420018363
30	...613273	...646316	...689549	...743024	...806791	...880902	...965409	...060364
40	...653834	...687081	...730518	...784198	...848171	...922490	418007206	...102370
50	...694400	...727849	...771491	...825376	...889556	...964082	...049006	...144381
60	...734969	...768622	...812468	...866559	...930945	416005679	...090811	...186395
70	...775542	...809399	...853450	...907746	...972338	...047279	...132620	...228414
80	...816120	...850180	...894435	...948936	414013735	...088884	...174434	...270437
90	...856702	...890965	...935424	...990131	...055137	...130493	...216251	...312464
100	...897287	...931754	...976418	412031330	...096542	...172106	...258073	...354495
110	...937877	...972547	410017416	...072533	...137952	...213723	...299898	...396530
120	...978471	408013344	...058417	...113741	...179366	...255344	...341728	...438570
130	406019069	...054146	...099423	...154952	...220784	...296970	...383563	...480614
140	...059671	...094951	...140433	...196167	...262206	...338600	...425401	...522662
150	...100277	...135761	...181447	...237387	...303632	...380234	...467244	...564714
160	...140887	...176574	...222465	...278611	...345062	...421872	...509090	...606771
170	...181501	...217392	...263487	...319839	...386497	...463514	...550941	...648831
180	...222119	...258214	...304514	...361071	...427936	...505160	...592796	...690896
190	...262741	...299039	...345544	...402307	...469378	...546811	...634656	...732965
200	...303367	...339869	...386579	...443547	...510825	...588465	...676519	...775039
210	...343998	...380703	...427617	...484791	...552276	...630124	...718387	...817116
220	...384632	...421541	...468660	...526040	...593732	...671787	...760259	...859198
230	...425270	...462384	...509707	...567292	...635191	...713454	...802135	...901284
240	...465913	...503230	...550758	...608549	...676654	...755126	...844015	...943374
250	...506560	...544080	...591813	...649810	...718122	...796801	...885899	...985468
260	...547210	...584934	...632872	...691075	...759594	...838481	...927788	421027567
270	...587865	...625793	...673936	...732344	...801070	...880165	...969681	...069670
280	...628524	...666656	...715003	...773617	...842550	...921853	419011577	...111776
290	...669187	...707522	...756075	...814895	...884034	...963545	...053479	...153888
300	...709854	...748393	...797150	...856176	...925523	417005241	...095384	...196003
310	...750525	...789268	...838230	...897462	...967015	...046942	...137294	...238123
320	...791200	...830147	...879314	...938752	415008512	...088647	...179207	...280246
330	...831879	...871030	...920402	...980045	...050013	...130355	...221125	...322374
340	...872562	...911917	...961494	413021343	...091518	...172068	...263047	...364507
350	...913249	...952808	411002590	...062646	...133027	...213786	...304974	...406643
360	...953940	...993703	...043690	...103952	...174540	...255507	...346904	...448784
370	...994636	409034603	...084794	...145262	...216058	...297233	...388839	...490929
380	407035335	...075506	...125903	...186577	...257579	...338962	...430778	...533078
390	...076039	...116414	...167016	...227895	...299105	...380696	...472721	...575231
400	...116746	...157325	...208132	...269218	...340635	...422434	...514668	...617389
410	...157458	...198241	...249253	...310545	...382169	...464176	...556619	...659550
420	...198174	...239161	...290378	...351876	...423707	...505923	...598575	...701716
430	...238894	...280085	...331507	...393211	...465250	...547673	...640535	...743887
440	...279618	...321013	...372640	...434551	...506796	...589428	...682499	...786061
450	...320346	...361945	...413777	...475894	...548347	...631187	...724467	...828240
460	...361078	...402881	...454919	...517242	...589902	...672950	...766440	...870422
470	...401814	...443821	...496064	...558593	...631461	...714718	...808416	...912609
480	...442554	...484766	...537214	...599949	...673024	...756489	...850397	...954801
490	...483298	...525714	...578368	...641309	...714591	...798265	...892382	...996996
500	...524046	...566667	...619525	...682673	...756163	...840045	...934372	422039196

Buergi's table (reconstruction, D. Roegel, 2010)

	144000	144500	145000	145500	146000	146500	147000	147500
0	422039196	424154570	426280547	428417180	430564523	432722628	434891551	437071344
10	...081400	...196986	...323175	...460022	...607579	...765900	...935040	...115051
20	...123608	...239405	...365807	...502868	...650640	...809177	...978533	...158763
30	...165820	...281829	...408444	...545718	...693705	...852458	435022031	...202479
40	...208037	...324257	...451085	...588573	...736774	...895743	...065533	...246199
50	...250258	...366690	...493730	...631432	...779848	...939033	...109040	...289924
60	...292483	...409126	...536379	...674295	...822926	...982327	...152551	...333653
70	...334712	...451567	...579033	...717162	...866008	433025625	...196066	...377386
80	...376945	...494012	...621691	...760034	...909095	...068927	...239586	...421124
90	...419183	...536462	...664353	...802910	...952186	...112234	...283110	...464866
100	...461425	...578916	...707020	...845790	...995281	...155545	...326638	...508612
110	...503671	...621373	...749690	...888675	431038380	...198861	...370171	...552363
120	...545921	...663836	...792365	...931564	...081484	...242181	...413708	...596118
130	...588176	...706302	...835044	...974457	...124592	...285505	...457249	...639878
140	...630435	...748773	...877728	429017354	...167705	...328834	...500795	...683642
150	...672698	...791247	...920416	...060256	...210822	...372167	...544345	...727410
160	...714965	...833727	...963108	...103162	...253943	...415504	...587899	...771183
170	...757237	...876210	427005804	...146072	...297068	...458845	...631458	...814960
180	...799512	...918698	...048505	...188987	...340198	...502191	...675021	...858742
190	...841792	...961189	...091210	...231906	...383332	...545541	...718589	...902528
200	...884077	425003686	...133919	...274829	...426470	...588896	...762160	...946318
210	...926365	...046186	...176632	...317756	...469613	...632255	...805737	...990112
220	...968658	...088691	...219350	...360688	...512760	...675618	...849317	438033912
230	423010954	...131199	...262072	...403624	...555911	...718986	...892902	...077715
240	...053256	...173713	...304798	...446565	...599067	...762358	...936491	...121523
250	...095561	...216230	...347528	...489509	...642227	...805734	...980085	...165335
260	...137870	...258752	...390263	...532458	...685391	...849114	436023683	...209151
270	...180184	...301277	...433002	...575412	...728559	...892499	...067285	...252972
280	...222502	...343808	...475745	...618369	...771732	...935889	...110892	...296798
290	...264824	...386342	...518493	...661331	...814909	...979282	...154503	...340627
300	...307151	...428881	...561245	...704297	...858091	434022680	...198119	...384461
310	...349482	...471423	...604001	...747267	...901277	...066082	...241739	...428300
320	...391817	...513971	...646761	...790242	...944467	...109489	...285363	...472143
330	...434156	...556522	...689526	...833221	...987661	...152900	...328991	...515990
340	...476499	...599078	...732295	...876205	432030860	...196315	...372624	...559841
350	...518847	...641638	...775068	...919192	...074063	...239735	...416261	...603697
360	...561199	...684202	...817846	...962184	...117270	...283159	...459903	...647558
370	...603555	...726770	...860627	430005180	...160482	...326587	...503549	...691423
380	...645915	...769343	...903414	...048181	...203698	...370020	...547199	...735292
390	...688280	...811920	...946204	...091186	...246919	...413457	...590854	...779165
400	...730649	...854501	...988999	...134195	...290143	...456898	...634513	...823043
410	...773022	...897086	428031797	...177208	...333372	...500344	...678177	...866925
420	...815399	...939676	...074601	...220226	...376606	...543794	...721844	...910812
430	...857781	...982270	...117408	...263248	...419843	...587248	...765517	...954703
440	...900166	426024868	...160220	...306274	...463085	...630707	...809193	...998599
450	...942556	...067471	...203036	...349305	...506332	...674170	...852874	439042499
460	...984951	...110078	...245856	...392340	...549582	...717637	...896559	...086403
470	424027349	...152689	...288681	...435379	...592837	...761109	...940249	...130311
480	...069752	...195304	...331510	...478423	...636097	...804585	...983943	...174224
490	...112159	...237923	...374343	...521470	...679360	...848066	437027641	...218142
500	...154570	...280547	...417180	...564523	...722628	...891551	...071344	...262064

Buergi's table (reconstruction, D. Roegel, 2010)

	148000	148500	149000	149500	150000	150500	151000	151500
0	439262064	441463764	443676499	445900325	448135298	450381473	452638906	454907654
10	...305990	...507910	...720867	...944915	...180111	...426511	...684170	...953145
20	...349920	...552061	...765239	...989510	...224929	...471554	...729438	...998641
30	...393855	...596216	...809615	446034109	...269752	...516601	...774711	455044140
40	...437795	...640376	...853996	...078712	...314579	...561652	...819989	...089645
50	...481739	...684540	...898382	...123320	...359410	...606709	...865271	...135154
60	...525687	...728708	...942771	...167932	...404246	...651769	...910557	...180667
70	...569639	...772881	...987166	...212549	...449087	...696834	...955848	...226185
80	...613596	...817058	444031564	...257170	...493932	...741904	453001144	...271708
90	...657558	...861240	...075968	...301796	...538781	...786978	...046444	...317235
100	...701523	...905426	...120375	...346426	...583635	...832057	...091749	...362767
110	...745494	...949617	...164787	...391061	...628493	...877140	...137058	...408303
120	...789468	...993812	...209204	...435700	...673356	...922228	...182372	...453844
130	...833447	442038011	...253625	...480344	...718223	...967320	...227690	...499389
140	...877430	...082215	...298050	...524992	...763095	451012417	...273013	...544939
150	...921418	...126423	...342480	...569644	...807972	...057518	...318340	...590494
160	...965410	...170636	...386914	...614301	...852852	...102624	...363672	...636053
170	440009407	...214853	...431353	...658962	...897738	...147734	...409008	...681616
180	...053408	...259074	...475796	...703628	...942627	...192849	...454349	...727185
190	...097413	...303300	...520243	...748299	...987522	...237968	...499695	...772757
200	...141423	...347530	...564695	...792974	449032420	...283092	...545045	...818335
210	...185437	...391765	...609152	...837653	...077324	...328220	...590399	...863916
220	...229456	...436004	...653613	...882337	...122231	...373353	...635758	...909503
230	...273479	...480248	...698078	...927025	...167144	...418490	...681122	...955094
240	...317506	...524496	...742548	...971718	...212060	...463632	...726490	456000689
250	...361538	...568748	...787022	447016415	...256982	...508779	...771862	...046289
260	...405574	...613005	...831501	...061116	...301907	...553930	...817240	...091894
270	...449614	...657267	...875984	...105823	...346837	...599085	...862621	...137503
280	...493659	...701532	...920472	...150533	...391772	...644245	...908008	...183117
290	...537709	...745802	...964964	...195248	...436711	...689409	...953398	...228735
300	...581762	...790077	445009460	...239968	...481655	...734578	...998794	...274358
310	...625821	...834356	...053961	...284692	...526603	...779752	454044194	...319986
320	...669883	...878639	...098467	...329420	...571556	...824930	...089598	...365618
330	...713950	...922927	...142976	...374153	...616513	...870112	...135007	...411254
340	...758022	...967220	...187491	...418890	...661475	...915299	...180420	...456895
350	...802097	443011516	...232010	...463632	...706441	...960491	...225839	...502541
360	...846178	...055817	...276533	...508379	...751411	452005687	...271261	...548191
370	...890262	...100123	...321060	...553130	...796387	...050887	...316688	...593846
380	...934351	...144433	...365592	...597885	...841366	...096092	...362120	...639505
390	...978445	...188748	...410129	...642645	...886350	...141302	...407556	...685169
400	441022543	...233066	...454670	...687409	...931339	...186516	...452997	...730838
410	...066645	...277390	...499216	...732178	...976332	...231735	...498442	...776511
420	...110751	...321717	...543765	...776951	450021330	...276958	...543892	...822189
430	...154863	...366050	...588320	...821729	...066332	...322186	...589346	...867871
440	...198978	...410386	...632879	...866511	...111338	...367418	...634805	...913558
450	...243098	...454727	...677442	...911297	...156350	...412655	...680269	...959249
460	...287222	...499073	...722010	...956089	...201365	...457896	...725737	457004945
470	...331351	...543423	...766582	448000884	...246385	...503142	...771209	...050645
480	...375484	...587777	...811159	...045684	...291410	...548392	...816687	...096350
490	...419622	...632136	...855740	...090489	...336439	...593647	...862168	...142060
500	...463764	...676499	...900325	...135298	...381473	...638906	...907654	...187774

Buergi's table (reconstruction, D. Roegel, 2010)

	152000	152500	153000	153500	154000	154500	155000	155500
0	457187774	459479323	461782357	464096935	466423114	468760952	471110508	473471841
10	...233493	...525271	...828535	...143344	...469756	...807828	...157619	...519188
20	...279216	...571223	...874718	...189759	...516403	...854709	...204735	...566540
30	...324944	...617180	...920905	...236178	...563054	...901594	...251856	...613897
40	...370677	...663142	...967098	...282601	...609711	...948484	...298981	...661258
50	...416414	...709108	462013294	...329029	...656372	...995379	...346111	...708624
60	...462155	...755079	...059496	...375462	...703037	469042279	...393245	...755995
70	...507902	...801055	...105702	...421900	...749708	...089183	...440385	...803371
80	...553652	...847035	...151912	...468342	...796383	...136092	...487529	...850751
90	...599408	...893019	...198127	...514789	...843062	...183006	...534677	...898136
100	...645168	...939009	...244347	...561240	...889747	...229924	...581831	...945526
110	...690932	...985003	...290572	...607697	...936436	...276847	...628989	...992921
120	...736701	460031001	...336801	...654157	...983129	...323775	...676152	474040320
130	...782475	...077004	...383034	...700623	467029828	...370707	...723319	...087724
140	...828253	...123012	...429273	...747093	...076531	...417644	...770492	...135133
150	...874036	...169024	...475516	...793567	...123238	...464586	...817669	...182546
160	...919824	...215041	...521763	...840047	...169950	...511532	...864851	...229964
170	...965616	...261063	...568015	...886531	...216667	...558483	...912037	...277387
180	458011412	...307089	...614272	...933019	...263389	...605439	...959228	...324815
190	...057213	...353120	...660533	...979513	...310115	...652400	472006424	...372248
200	...103019	...399155	...706800	465026011	...356846	...699365	...053625	...419685
210	...148829	...445195	...753070	...072513	...403582	...746335	...100830	...467127
220	...194644	...491239	...799345	...119021	...450323	...793310	...148040	...514574
230	...240464	...537288	...845625	...165533	...497068	...840289	...195255	...562025
240	...286288	...583342	...891910	...212049	...543817	...887273	...242475	...609481
250	...332116	...629400	...938199	...258570	...590572	...934262	...289699	...656942
260	...377950	...675463	...984493	...305096	...637331	...981255	...336928	...704408
270	...423787	...721531	463030791	...351627	...684094	470028253	...384162	...751878
280	...469630	...767603	...077095	...398162	...730863	...075256	...431400	...799354
290	...515477	...813680	...123402	...444702	...777636	...122264	...478643	...846833
300	...561328	...859761	...169715	...491246	...824414	...169276	...525891	...894318
310	...607184	...905847	...216032	...537795	...871196	...216293	...573144	...941808
320	...653045	...951938	...262353	...584349	...917983	...263314	...620401	...989302
330	...698910	...998033	...308679	...630907	...964775	...310341	...667663	475036801
340	...744780	461044133	...355010	...677471	468011572	...357372	...714930	...084304
350	...790655	...090237	...401346	...724038	...058373	...404407	...762201	...131813
360	...836534	...136346	...447686	...770611	...105179	...451448	...809477	...179326
370	...882417	...182460	...494031	...817188	...151989	...498493	...856758	...226844
380	...928306	...228578	...540380	...863769	...198804	...545543	...904044	...274367
390	...974199	...274701	...586734	...910356	...245624	...592597	...951334	...321894
400	459020096	...320828	...633093	...956947	...292449	...639657	...998630	...369426
410	...065998	...366960	...679456	466003543	...339278	...686721	473045929	...416963
420	...111905	...413097	...725824	...050143	...386112	...733789	...093234	...464505
430	...157816	...459238	...772197	...096748	...432950	...780863	...140543	...512051
440	...203732	...505384	...818574	...143358	...479794	...827941	...187857	...559603
450	...249652	...551535	...864956	...189972	...526642	...875024	...235176	...607158
460	...295577	...597690	...911342	...236591	...573494	...922111	...282500	...654719
470	...341506	...643850	...957733	...283215	...620352	...969203	...329828	...702285
480	...387441	...690014	464004129	...329843	...667214	471016300	...377161	...749855
490	...433379	...736183	...050530	...376476	...714081	...063402	...424499	...797430
500	...479323	...782357	...096935	...423114	...760952	...110508	...471841	...845010

Buergi's table (reconstruction, D. Roegel, 2010)

	156000	156500	157000	157500	158000	158500	159000	159500
0	475845010	478230073	480627091	483036124	485457231	487890474	490335912	492793608
10	...892594	...277896	...675154	...084427	...505777	...939263	...384946	...842887
20	...940183	...325724	...723221	...132736	...554327	...988057	...433984	...892172
30	...987777	...373556	...771294	...181049	...602883	488036855	...483028	...941461
40	476035376	...421394	...819371	...229367	...651443	...085659	...532076	...990755
50	...082980	...469236	...867453	...277690	...700008	...134468	...581129	493040054
60	...130588	...517083	...915540	...326018	...748578	...183281	...630187	...089358
70	...178201	...564935	...963631	...374350	...797153	...232099	...679250	...138667
80	...225819	...612791	481011727	...422688	...845733	...280923	...728318	...187981
90	...273441	...660652	...059829	...471030	...894317	...329751	...777391	...237300
100	...321069	...708518	...107935	...519377	...942907	...378584	...826469	...286623
110	...368701	...756389	...156045	...567729	...991501	...427422	...875551	...335952
120	...416338	...804265	...204161	...616086	486040100	...476264	...924639	...385286
130	...463979	...852145	...252281	...664448	...088704	...525112	...973731	...434624
140	...511626	...900031	...300407	...712814	...137313	...573964	491022829	...483968
150	...559277	...947921	...348537	...761185	...185927	...622822	...071931	...533316
160	...606933	...995815	...396672	...809561	...234545	...671684	...121038	...582669
170	...654594	479043715	...444811	...857942	...283169	...720551	...170150	...632028
180	...702259	...091619	...492956	...906328	...331797	...769423	...219267	...681391
190	...749929	...139528	...541105	...954719	...380430	...818300	...268389	...730759
200	...797604	...187442	...589259	484003114	...429068	...867182	...317516	...780132
210	...845284	...235361	...637418	...051515	...477711	...916069	...366648	...829510
220	...892969	...283285	...685582	...099920	...526359	...964960	...415785	...878893
230	...940658	...331213	...733750	...148330	...575012	489013857	...464926	...928281
240	...988352	...379146	...781924	...196745	...623669	...062758	...514073	...977674
250	477036051	...427084	...830102	...245164	...672332	...111665	...563224	494027072
260	...083754	...475027	...878285	...293589	...720999	...160576	...612380	...076474
270	...131463	...522974	...926473	...342018	...769671	...209492	...661542	...125882
280	...179176	...570927	...974665	...390452	...818348	...258413	...710708	...175294
290	...226894	...618884	482022863	...438891	...867030	...307339	...759879	...224712
300	...274617	...666846	...071065	...487335	...915716	...356269	...809055	...274134
310	...322344	...714812	...119272	...535784	...964408	...405205	...858236	...323562
320	...370076	...762784	...167484	...584238	487013104	...454145	...907422	...372994
330	...417813	...810760	...215701	...632696	...061806	...503091	...956612	...422432
340	...465555	...858741	...263922	...681159	...110512	...552041	492005808	...471874
350	...513302	...906727	...312149	...729627	...159223	...600996	...055009	...521321
360	...561053	...954718	...360380	...778100	...207939	...649956	...104214	...570773
370	...608809	480002713	...408616	...826578	...256660	...698921	...153425	...620230
380	...656570	...050713	...456857	...875061	...305385	...747891	...202640	...669692
390	...704336	...098718	...505103	...923548	...354116	...796866	...251860	...719159
400	...752106	...146728	...553353	...972041	...402851	...845846	...301085	...768631
410	...799881	...194743	...601609	485020538	...451592	...894830	...350315	...818108
420	...847661	...242762	...649869	...069040	...500337	...943820	...399550	...867590
430	...895446	...290787	...698134	...117547	...549087	...992814	...448790	...917077
440	...943235	...338816	...746403	...166059	...597842	490041814	...498035	...966568
450	...991030	...386850	...794678	...214575	...646602	...090818	...547285	495016065
460	478038829	...434888	...842958	...263097	...695366	...139827	...596540	...065566
470	...086633	...482932	...891242	...311623	...744136	...188841	...645799	...115073
480	...134441	...530980	...939531	...360154	...792910	...237860	...695064	...164585
490	...182255	...579033	...987825	...408690	...841689	...286883	...744334	...214101
500	...230073	...627091	483036124	...457231	...890474	...335912	...793608	...263622

Buergi's table (reconstruction, D. Roegel, 2010)

	160000	160500	161000	161500	162000	162500	163000	163500
0	495263622	497746017	500240854	502748196	505268106	507800646	510345880	512903871
10	... 313149	... 795792	... 290879	... 798471	... 318633	... 851426	... 396914	... 955161
20	... 362680	... 845571	... 340908	... 848751	... 369165	... 902211	... 447954	513006457
30	... 412216	... 895356	... 390942	... 899036	... 419702	... 953001	... 498999	... 057757
40	... 461758	... 945145	... 440981	... 949326	... 470244	508003797	... 550049	... 109063
50	... 511304	... 994940	... 491025	... 999621	... 520791	... 054597	... 601104	... 160374
60	... 560855	498044739	... 541074	503049921	... 571343	... 105403	... 652164	... 211690
70	... 610411	... 094544	... 591128	... 100226	... 621900	... 156213	... 703229	... 263011
80	... 659972	... 144353	... 641187	... 150536	... 672462	... 207029	... 754299	... 314338
90	... 709538	... 194168	... 691251	... 200851	... 723029	... 257849	... 805375	... 365669
100	... 759109	... 243987	... 741320	... 251171	... 773602	... 308675	... 856455	... 417006
110	... 808685	... 293812	... 791395	... 301496	... 824179	... 359506	... 907541	... 468347
120	... 858266	... 343641	... 841474	... 351826	... 874761	... 410342	... 958632	... 519694
130	... 907852	... 393475	... 891558	... 402161	... 925349	... 461183	511009728	... 571046
140	... 957442	... 443315	... 941647	... 452502	... 975941	... 512029	... 060829	... 622403
150	496007038	... 493159	... 991741	... 502847	506026539	... 562880	... 111935	... 673765
160	... 056639	... 543008	501041840	... 553197	... 077142	... 613737	... 163046	... 725133
170	... 106244	... 592863	... 091945	... 603553	... 127749	... 664598	... 214162	... 776505
180	... 155855	... 642722	... 142054	... 653913	... 178362	... 715465	... 265284	... 827883
190	... 205471	... 692586	... 192168	... 704278	... 228980	... 766336	... 316410	... 879266
200	... 255091	... 742456	... 242287	... 754649	... 279603	... 817213	... 367542	... 930654
210	... 304717	... 792330	... 292411	... 805024	... 330231	... 868094	... 418678	... 982047
220	... 354347	... 842209	... 342541	... 855405	... 380864	... 918981	... 469820	514033445
230	... 403983	... 892093	... 392675	... 905790	... 431502	... 969873	... 520967	... 084848
240	... 453623	... 941982	... 442814	... 956181	... 482145	509020770	... 572119	... 136257
250	... 503268	... 991877	... 492958	504006576	... 532793	... 071672	... 623277	... 187670
260	... 552919	499041776	... 543108	... 056977	... 583447	... 122579	... 674439	... 239089
270	... 602574	... 091680	... 593262	... 107383	... 634105	... 173492	... 725606	... 290513
280	... 652234	... 141589	... 643421	... 157793	... 684768	... 224409	... 776779	... 341942
290	... 701899	... 191503	... 693586	... 208209	... 735437	... 275331	... 827957	... 393376
300	... 751570	... 241422	... 743755	... 258630	... 786110	... 326259	... 879139	... 444816
310	... 801245	... 291347	... 793929	... 309056	... 836789	... 377192	... 930327	... 496260
320	... 850925	... 341276	... 844109	... 359487	... 887473	... 428129	... 981520	... 547710
330	... 900610	... 391210	... 894293	... 409923	... 938161	... 479072	512032719	... 599165
340	... 950300	... 441149	... 944483	... 460364	... 988855	... 530020	... 083922	... 650625
350	... 999995	... 491093	... 994677	... 510810	507039554	... 580973	... 135130	... 702090
360	497049695	... 541042	502044877	... 561261	... 090258	... 631931	... 186344	... 753560
370	... 099400	... 590996	... 095081	... 611717	... 140967	... 682894	... 237562	... 805035
380	... 149110	... 640955	... 145291	... 662178	... 191681	... 733863	... 288786	... 856516
390	... 198825	... 690920	... 195505	... 712644	... 242400	... 784836	... 340015	... 908001
400	... 248545	... 740889	... 245725	... 763116	... 293125	... 835814	... 391249	... 959492
410	... 298270	... 790863	... 295949	... 813592	... 343854	... 886798	... 442488	515010988
420	... 348000	... 840842	... 346179	... 864073	... 394588	... 937787	... 493732	... 062489
430	... 397734	... 890826	... 396413	... 914560	... 445328	... 988780	... 544982	... 113995
440	... 447474	... 940815	... 446653	... 965051	... 496072	510039779	... 596236	... 165507
450	... 497219	... 990809	... 496898	505015548	... 546822	... 090783	... 647496	... 217023
460	... 546969	500040808	... 547147	... 066049	... 597577	... 141792	... 698761	... 268545
470	... 596723	... 090812	... 597402	... 116556	... 648336	... 192807	... 750031	... 320072
480	... 646483	... 140821	... 647662	... 167068	... 699101	... 243826	... 801306	... 371604
490	... 696248	... 190835	... 697927	... 217584	... 749871	... 294850	... 852586	... 423141
500	... 746017	... 240854	... 748196	... 268106	... 800646	... 345880	... 903871	... 474683

Buergi's table (reconstruction, D. Roegel, 2010)

	164000	164500	165000	165500	166000	166500	167000	167500
0	515474683	518058381	520655030	523264693	525887437	528523327	531172428	533834807
10	...526231	...110187	...707095	...317020	...940026	...576179	...225545	...888191
20	...577783	...161998	...759166	...369351	...992620	...629036	...278668	...941580
30	...629341	...213815	...811242	...421688	526045219	...681899	...331796	...994974
40	...680904	...265636	...863323	...474030	...097823	...734768	...384929	534048373
50	...732472	...317462	...915409	...526378	...150433	...787641	...438067	...101778
60	...784046	...369294	...967501	...578730	...203048	...840520	...491211	...155188
70	...835624	...421131	521019598	...631088	...255669	...893404	...544360	...208604
80	...887207	...472973	...071700	...683451	...308294	...946293	...597515	...262025
90	...938796	...524821	...123807	...735820	...360925	...999188	...650674	...315451
100	...990390	...576673	...175919	...788193	...413561	529052088	...703839	...368882
110	516041989	...628531	...228037	...840572	...466202	...104993	...757010	...422319
120	...093593	...680394	...280160	...892956	...518849	...157903	...810186	...475762
130	...145203	...732262	...332288	...945346	...571501	...210819	...863367	...529209
140	...196817	...784135	...384421	...997740	...624158	...263740	...916553	...582662
150	...248437	...836013	...436559	524050140	...676820	...316667	...969745	...636120
160	...300062	...887897	...488703	...102545	...729488	...369598	532022942	...689584
170	...351692	...939786	...540852	...154955	...782161	...422535	...076144	...743053
180	...403327	...991680	...593006	...207371	...834839	...475478	...129351	...796527
190	...454967	519043579	...645165	...259791	...887523	...528425	...182564	...850007
200	...506613	...095483	...697330	...312217	...940212	...581378	...235783	...903492
210	...558263	...147393	...749499	...364649	...992906	...634336	...289006	...956982
220	...609919	...199307	...801674	...417085	527045605	...687300	...342235	535010478
230	...661580	...251227	...853855	...469527	...098309	...740268	...395469	...063979
240	...713246	...303152	...906040	...521974	...151019	...793242	...448709	...117485
250	...764918	...355083	...958231	...574426	...203734	...846222	...501954	...170997
260	...816594	...407018	522010426	...626883	...256455	...899206	...555204	...224514
270	...868276	...458959	...062627	...679346	...309180	...952196	...608459	...278037
280	...919963	...510905	...114834	...731814	...361911	530005191	...661720	...331564
290	...971655	...562856	...167045	...784287	...414647	...058192	...714986	...385098
300	517023352	...614812	...219262	...836766	...467389	...111198	...768258	...438636
310	...075054	...666774	...271484	...889249	...520136	...164209	...821535	...492180
320	...126762	...718740	...323711	...941738	...572888	...217225	...874817	...545729
330	...178474	...770712	...375943	...994232	...625645	...270247	...928104	...599284
340	...230192	...822689	...428181	525046732	...678408	...323274	...981397	...652844
350	...281915	...874672	...480424	...099236	...731175	...376306	533034695	...706409
360	...333643	...926659	...532672	...151746	...783949	...429344	...087999	...759980
370	...385377	...978652	...584925	...204262	...836727	...482387	...141308	...813556
380	...437115	520030650	...637183	...256782	...889511	...535435	...194622	...867137
390	...488859	...082653	...689447	...309308	...942300	...588489	...247941	...920724
400	...540608	...134661	...741716	...361839	...995094	...641548	...301266	...974316
410	...592362	...186674	...793990	...414375	528047893	...694612	...354596	536027913
420	...644121	...238693	...846270	...466916	...100698	...747681	...407932	...081516
430	...695886	...290717	...898554	...519463	...153508	...800756	...461272	...135124
440	...747655	...342746	...950844	...572015	...206323	...853836	...514619	...188738
450	...799430	...394780	523003139	...624572	...259144	...906921	...567970	...242357
460	...851210	...446820	...055440	...677134	...311970	...960012	...621327	...295981
470	...902995	...498864	...107745	...729702	...364801	531013108	...674689	...349610
480	...954785	...550914	...160056	...782275	...417638	...066209	...728056	...403245
490	518006581	...602969	...212372	...834853	...470479	...119316	...781429	...456886
500	...058381	...655030	...264693	...887437	...523327	...172428	...834807	...510531

Buergi's table (reconstruction, D. Roegel, 2010)

	168000	168500	169000	169500	170000	170500	171000	171500
0	536510531	539199667	541902281	544618441	547348216	550091673	552848880	555619908
10	...564182	...253587	...956471	...672903	...402951	...146682	...904165	...675470
20	...617839	...307512	542010667	...727370	...457691	...201696	...959456	...731038
30	...671501	...361443	...064868	...781843	...512437	...256717	553014752	...786611
40	...725168	...415379	...119074	...836321	...567188	...311742	...070053	...842189
50	...778840	...469321	...173286	...890805	...621945	...366773	...125360	...897773
60	...832518	...523267	...227504	...945294	...676707	...421810	...180673	...953363
70	...886201	...577220	...281726	...999789	...731474	...476852	...235991	556008959
80	...939890	...631178	...335954	545054289	...786248	...531900	...291314	...064559
90	...993584	...685141	...390188	...108794	...841026	...586953	...346643	...120166
100	537047283	...739109	...444427	...163305	...895810	...642012	...401978	...175778
110	...100988	...793083	...498672	...217821	...950600	...697076	...457318	...231396
120	...154698	...847062	...552921	...272343	548005395	...752146	...512664	...287019
130	...208414	...901047	...607177	...326870	...060195	...807221	...568015	...342647
140	...262135	...955037	...661437	...381403	...115001	...862302	...623372	...398282
150	...315861	540009033	...715704	...435941	...169813	...917388	...678734	...453921
160	...369592	...063034	...769975	...490485	...224630	...972480	...734102	...509567
170	...423329	...117040	...824252	...545034	...279452	551027577	...789476	...565218
180	...477072	...171052	...878535	...599588	...334280	...082680	...844855	...620874
190	...530819	...225069	...932822	...654148	...389114	...137788	...900239	...676536
200	...584572	...279091	...987116	...708714	...443953	...192902	...955629	...732204
210	...638331	...333119	543041414	...763284	...498797	...248021	554011025	...787877
220	...692095	...387152	...095719	...817861	...553647	...303146	...066426	...843556
230	...745864	...441191	...150028	...872442	...608502	...358276	...121832	...899240
240	...799638	...495235	...204343	...927030	...663363	...413412	...177245	...954930
250	...853418	...549285	...258664	...981622	...718230	...468553	...232662	557010626
260	...907204	...603340	...312989	546036221	...773101	...523700	...288086	...066327
270	...960994	...657400	...367321	...090824	...827979	...578852	...343514	...122034
280	538014791	...711466	...421657	...145433	...882861	...634010	...398949	...177746
290	...068592	...765537	...476000	...200048	...937750	...689174	...454389	...233464
300	...122399	...819613	...530347	...254668	...992644	...744343	...509834	...289187
310	...176211	...873695	...584700	...309293	549047543	...799517	...565285	...344916
320	...230029	...927783	...639059	...363924	...102448	...854697	...620742	...400650
330	...283852	...981876	...693423	...418561	...157358	...909883	...676204	...456390
340	...337680	541035974	...747792	...473203	...212274	...965074	...731671	...512136
350	...391514	...090077	...802167	...527850	...267195	552020270	...787144	...567887
360	...445353	...144186	...856547	...582503	...322121	...075472	...842623	...623644
370	...499198	...198301	...910933	...637161	...377054	...130680	...898107	...679406
380	...553048	...252421	...965324	...691825	...431991	...185893	...953597	...735174
390	...606903	...306546	544019720	...746494	...486935	...241111	555009093	...790948
400	...660764	...360677	...074122	...801168	...541883	...296335	...064594	...846727
410	...714630	...414813	...128530	...855849	...596837	...351565	...120100	...902512
420	...768501	...468954	...182942	...910534	...651797	...406800	...175612	...958302
430	...822378	...523101	...237361	...965225	...706762	...462041	...231130	558014098
440	...876260	...577253	...291785	547019922	...761733	...517287	...286653	...069899
450	...930148	...631411	...346214	...074624	...816709	...572539	...342181	...125706
460	...984041	...685574	...400648	...129331	...871691	...627796	...397716	...181519
470	539037939	...739743	...455088	...184044	...926678	...683059	...453255	...237337
480	...091843	...793917	...509534	...238762	...981671	...738327	...508801	...293161
490	...145752	...848096	...563985	...293486	550036669	...793601	...564352	...348990
500	...199667	...902281	...618441	...348216	...091673	...848880	...619908	...404825

Buergi's table (reconstruction, D. Roegel, 2010)

	172000	172500	173000	173500	174000	174500	175000	175500
0	558404825	561203700	564016605	566843608	569684781	572540195	575409920	578294030
10	...460665	...259821	...073006	...900292	...741749	...597449	...467461	...351859
20	...516511	...315947	...129414	...956982	...798723	...654708	...525008	...409695
30	...572363	...372078	...185826	567013678	...855703	...711974	...582561	...467536
40	...628220	...428215	...242245	...070379	...912689	...769245	...640119	...525382
50	...684083	...484358	...298669	...127086	...969680	...826522	...697683	...583235
60	...739951	...540507	...355099	...183799	570026677	...883805	...755253	...641093
70	...795825	...596661	...411535	...240517	...083680	...941093	...812828	...698957
80	...851705	...652820	...467976	...297241	...140688	...998387	...870409	...756827
90	...907590	...708986	...524423	...353971	...197702	573055687	...927997	...814703
100	...963481	...765157	...580875	...410707	...254722	...112992	...985589	...872584
110	559019377	...821333	...637333	...467448	...311748	...170304	576043188	...930472
120	...075279	...877515	...693797	...524194	...368779	...227621	...100792	...988365
130	...131187	...933703	...750266	...580947	...425816	...284944	...158402	579046264
140	...187100	...989896	...806741	...637705	...482858	...342272	...216018	...104168
150	...243019	562046095	...863222	...694469	...539906	...399606	...273640	...162079
160	...298943	...102300	...919708	...751238	...596960	...456946	...331267	...219995
170	...354873	...158510	...976200	...808013	...654020	...514292	...388900	...277917
180	...410808	...214726	565032698	...864794	...711086	...571643	...446539	...335845
190	...466749	...270948	...089201	...921581	...768157	...629001	...504184	...393778
200	...522696	...327175	...145710	...978373	...825233	...686363	...561834	...451718
210	...578648	...383407	...202225	568035171	...882316	...743732	...619490	...509663
220	...634606	...439646	...258745	...091974	...939404	...801106	...677152	...567614
230	...690570	...495890	...315271	...148783	...996498	...858487	...734820	...625570
240	...746539	...552139	...371802	...205598	571053598	...915872	...792493	...683533
250	...802513	...608394	...428339	...262419	...110703	...973264	...850173	...741501
260	...858494	...664655	...484882	...319245	...167814	574030661	...907858	...799475
270	...914479	...720922	...541431	...376077	...224931	...088064	...965549	...857455
280	...970471	...777194	...597985	...432914	...282054	...145473	577023245	...915441
290	560026468	...833472	...654545	...489758	...339182	...202888	...080947	...973433
300	...082471	...889755	...711110	...546607	...396316	...260308	...138656	580031430
310	...138479	...946044	...767681	...603461	...453455	...317734	...196369	...089433
320	...194493	563002338	...824258	...660322	...510601	...375166	...254089	...147442
330	...250512	...058639	...880840	...717188	...567752	...432603	...311814	...205457
340	...306537	...114945	...937429	...774059	...624908	...490047	...369546	...263477
350	...362568	...171256	...994022	...830937	...682071	...547496	...427283	...321504
360	...418604	...227573	566050622	...887820	...739239	...604950	...485025	...379536
370	...474646	...283896	...107227	...944709	...796413	...662411	...542774	...437574
380	...530693	...340224	...163837	569001603	...853593	...719877	...600528	...495618
390	...586746	...396558	...220454	...058503	...910778	...777349	...658288	...553667
400	...642805	...452898	...277076	...115409	...967969	...834827	...716054	...611723
410	...698869	...509243	...333704	...172321	572025166	...892310	...773826	...669784
420	...754939	...565594	...390337	...229238	...082368	...949800	...831603	...727851
430	...811015	...621951	...446976	...286161	...139577	575007295	...889386	...785924
440	...867096	...678313	...503621	...343090	...196791	...064795	...947175	...844002
450	...923183	...734681	...560271	...400024	...254010	...122302	578004970	...902087
460	...979275	...791054	...616927	...456964	...311236	...179814	...062770	...960177
470	561035373	...847433	...673589	...513910	...368467	...237332	...120577	581018273
480	...091476	...903818	...730256	...570861	...425704	...294856	...178389	...076375
490	...147586	...960209	...786929	...627818	...482946	...352385	...236206	...134482
500	...203700	564016605	...843608	...684781	...540195	...409920	...294030	...192596

Buergi's table (reconstruction, D. Roegel, 2010)

	176000	176500	177000	177500	178000	178500	179000	179500
0	581192596	584105690	587033385	589975754	592932872	595904811	598891647	601893453
10	...250715	...164100	...092088	590034752	...992165	...964402	...951536	...953643
20	...308840	...222517	...150797	...093756	593051465	596023998	599011431	602013838
30	...366971	...280939	...209512	...152765	...110770	...083601	...071332	...074040
40	...425108	...339367	...268233	...211780	...170081	...143209	...131240	...134247
50	...483250	...397801	...326960	...270801	...229398	...202823	...191153	...194460
60	...541398	...456241	...385693	...329828	...288721	...262444	...251072	...254680
70	...599553	...514686	...444432	...388861	...348050	...322070	...310997	...314905
80	...657712	...573138	...503176	...447900	...407384	...381702	...370928	...375137
90	...715878	...631595	...561926	...506945	...466725	...441340	...430865	...435374
100	...774050	...690058	...620682	...565996	...526072	...500984	...490808	...495618
110	...832227	...748527	...679445	...625052	...585424	...560635	...550757	...555867
120	...890410	...807002	...738212	...684115	...644783	...620291	...610712	...616123
130	...948600	...865483	...796986	...743183	...704147	...679953	...670673	...676385
140	582006794	...923969	...855766	...802258	...763518	...739621	...730641	...736652
150	...064995	...982462	...914552	...861338	...822894	...799295	...790614	...796926
160	...123202	585040960	...973343	...920424	...882276	...858975	...850593	...857206
170	...181414	...099464	588032140	...979516	...941665	...918660	...910578	...917491
180	...239632	...157974	...090944	591038614	594001059	...978352	...970569	...977783
190	...297856	...216490	...149753	...097718	...060459	597038050	600030566	603038081
200	...356086	...275011	...208568	...156828	...119865	...097754	...090569	...098385
210	...414321	...333539	...267389	...215943	...179277	...157464	...150578	...158694
220	...472563	...392072	...326215	...275065	...238695	...217179	...210593	...219010
230	...530810	...450612	...385048	...334192	...298119	...276901	...270614	...279332
240	...589063	...509157	...443886	...393326	...357549	...336629	...330641	...339660
250	...647322	...567708	...502731	...452465	...416984	...396363	...390674	...399994
260	...705587	...626264	...561581	...511610	...476426	...456102	...450713	...460334
270	...763857	...684827	...620437	...570762	...535874	...515848	...510758	...520680
280	...822134	...743395	...679299	...629919	...595327	...575599	...570809	...581032
290	...880416	...801970	...738167	...689082	...654787	...635357	...630866	...641390
300	...938704	...860550	...797041	...748251	...714252	...695120	...690930	...701754
310	...996998	...919136	...855921	...807425	...773724	...754890	...750999	...762125
320	583055298	...977728	...914806	...866606	...833201	...814665	...811074	...822501
330	...113603	586036326	...973698	...925793	...892684	...874447	...871155	...882883
340	...171914	...094929	589032595	...984985	...952174	...934234	...931242	...943271
350	...230232	...153539	...091498	592044184	595011669	...994028	...991335	604003666
360	...288555	...212154	...150408	...103388	...071170	598053827	601051434	...064066
370	...346884	...270775	...209323	...162599	...130677	...113633	...111539	...124472
380	...405218	...329402	...268244	...221815	...190190	...173444	...171651	...184885
390	...463559	...388035	...327170	...281037	...249709	...233261	...231768	...245303
400	...521905	...446674	...386103	...340265	...309234	...293085	...291891	...305728
410	...580257	...505319	...445042	...399499	...368765	...352914	...352020	...366159
420	...638615	...563969	...503986	...458739	...428302	...412749	...412155	...426595
430	...696979	...622626	...562937	...517985	...487845	...472590	...472296	...487038
440	...755349	...681288	...621893	...577237	...547394	...532438	...532444	...547487
450	...813724	...739956	...680855	...636494	...606948	...592291	...592597	...607941
460	...872106	...798630	...739823	...695758	...666509	...652150	...652756	...668402
470	...930493	...857310	...798797	...755028	...726076	...712015	...712921	...728869
480	...988886	...915996	...857777	...814303	...785648	...771887	...773093	...789342
490	584047285	...974687	...916763	...873585	...845227	...831764	...833270	...849821
500	...105690	587033385	...975754	...932872	...904811	...891647	...893453	...910306

Buergi's table (reconstruction, D. Roegel, 2010)

	180000	180500	181000	181500	182000	182500	183000	183500
0	604910306	607942279	610989450	614051894	617129687	620222908	623331632	626455938
10	...970797	608003073	611050549	...113299	...191400	...284930	...393965	...518584
20	605031294	...063874	...111654	...174710	...253119	...346959	...456305	...581236
30	...091797	...124680	...172765	...236128	...314845	...408993	...518650	...643894
40	...152306	...185493	...233882	...297551	...376576	...471034	...581002	...706558
50	...212821	...246311	...295006	...358981	...438314	...533081	...643360	...769229
60	...273343	...307136	...356135	...420417	...500058	...595135	...705725	...831906
70	...333870	...367967	...417271	...481859	...561808	...657194	...768095	...894589
80	...394403	...428803	...478413	...543307	...623564	...719260	...830472	...957279
90	...454943	...489646	...539560	...604762	...685326	...781332	...892855	627019974
100	...515488	...550495	...600714	...666222	...747095	...843410	...955244	...082676
110	...576040	...611350	...661874	...727689	...808870	...905494	624017640	...145385
120	...636597	...672211	...723041	...789161	...870650	...967585	...080042	...208099
130	...697161	...733079	...784213	...850640	...932438	621029681	...142450	...270820
140	...757731	...793952	...845391	...912125	...994231	...091784	...204864	...333547
150	...818307	...854831	...906576	...973617	618056030	...153894	...267284	...396280
160	...878888	...915717	...967767	615035114	...117836	...216009	...329711	...459020
170	...939476	...976608	612028963	...096617	...179648	...278131	...392144	...521766
180	606000070	609037506	...090166	...158127	...241466	...340258	...454583	...584518
190	...060670	...098410	...151375	...219643	...303290	...402392	...517029	...647277
200	...121276	...159320	...212590	...281165	...365120	...464533	...579481	...710041
210	...181888	...220236	...273812	...342693	...426957	...526679	...641938	...772812
220	...242507	...281158	...335039	...404227	...488799	...588832	...704403	...835590
230	...303131	...342086	...396272	...465768	...550648	...650991	...766873	...898373
240	...363761	...403020	...457512	...527314	...612503	...713156	...829350	...961163
250	...424398	...463960	...518758	...588867	...674364	...775327	...891833	628023959
260	...485040	...524907	...580010	...650426	...736232	...837505	...954322	...086761
270	...545689	...585859	...641268	...711991	...798105	...899688	625016817	...149570
280	...606343	...646818	...702532	...773562	...859985	...961878	...079319	...212385
290	...667004	...707782	...763802	...835140	...921871	622024075	...141827	...275206
300	...727670	...768753	...825078	...896723	...983763	...086277	...204341	...338034
310	...788343	...829730	...886361	...958313	619045662	...148486	...266862	...400868
320	...849022	...890713	...947650	616019909	...107566	...210700	...329388	...463708
330	...909707	...951702	613008944	...081511	...169477	...272922	...391921	...526554
340	...970398	610012697	...070245	...143119	...231394	...335149	...454460	...589407
350	607031095	...073698	...131552	...204733	...293317	...397382	...517006	...652266
360	...091798	...134706	...192865	...266353	...355247	...459622	...579558	...715131
370	...152507	...195719	...254185	...327980	...417182	...521868	...642115	...778002
380	...213222	...256739	...315510	...389613	...479124	...584120	...704680	...840880
390	...273944	...317765	...376842	...451252	...541072	...646379	...767250	...903764
400	...334671	...378796	...438179	...512897	...603026	...708643	...829827	...966655
410	...395405	...439834	...499523	...574548	...664986	...770914	...892410	629029551
420	...456144	...500878	...560873	...636206	...726953	...833191	...954999	...092454
430	...516890	...561928	...622229	...697869	...788925	...895475	626017595	...155364
440	...577642	...622984	...683592	...759539	...850904	...957764	...080196	...218279
450	...638399	...684047	...744960	...821215	...912889	623020060	...142804	...281201
460	...699163	...745115	...806334	...882897	...974881	...082362	...205419	...344129
470	...759933	...806190	...867715	...944585	620036878	...144670	...268039	...407063
480	...820709	...867270	...929102	617006280	...098882	...206985	...330666	...470004
490	...881491	...928357	...990495	...067981	...160892	...269305	...393299	...532951
500	...942279	...989450	614051894	...129687	...222908	...331632	...455938	...595904

Buergi's table (reconstruction, D. Roegel, 2010)

	184000	184500	185000	185500	186000	186500	187000	187500
0	629595904	632751609	635923131	639110549	642313943	645533394	648768981	652020786
10	...658864	...814884	...986723	...174460	...378175	...597947	...833858	...085988
20	...721830	...878166	636050322	...238377	...442412	...662507	...898742	...151197
30	...784802	...941453	...113927	...302301	...506657	...727073	...963631	...216412
40	...847781	633004748	...177538	...366231	...570907	...791646	649028528	...281634
50	...910765	...068048	...241156	...430168	...635164	...856225	...093431	...346862
60	...973756	...131355	...304780	...494111	...699428	...920811	...158340	...412097
70	630036754	...194668	...368410	...558060	...763698	...985403	...223256	...477338
80	...099758	...257987	...432047	...622016	...827974	646050001	...288178	...542586
90	...162767	...321313	...495690	...685978	...892257	...114606	...353107	...607840
100	...225784	...384645	...559340	...749947	...956546	...179218	...418042	...673101
110	...288806	...447984	...622996	...813922	643020842	...243836	...482984	...738368
120	...351835	...511329	...686658	...877903	...085144	...308460	...547932	...803642
130	...414870	...574680	...750327	...941891	...149452	...373091	...612887	...868922
140	...477912	...638037	...814002	640005885	...213767	...437728	...677848	...934209
150	...540960	...701401	...877683	...069886	...278089	...502372	...742816	...999502
160	...604014	...764771	...941371	...133893	...342417	...567022	...807790	653064802
170	...667074	...828148	637005065	...197906	...406751	...631679	...872771	...130109
180	...730141	...891530	...068766	...261926	...471092	...696342	...937759	...195422
190	...793214	...954920	...132473	...325952	...535439	...761012	650002752	...260741
200	...856293	634018315	...196186	...389985	...599792	...825688	...067753	...326067
210	...919379	...081717	...259905	...454024	...664152	...890370	...132759	...391400
220	...982471	...145125	...323631	...518069	...728519	...955059	...197773	...456739
230	631045569	...208540	...387364	...582121	...792891	647019755	...262792	...522085
240	...108674	...271960	...451103	...646179	...857271	...084457	...327819	...587437
250	...171784	...335388	...514848	...710244	...921656	...149165	...392851	...652796
260	...234902	...398821	...578599	...774315	...986049	...213880	...457891	...718161
270	...298025	...462261	...642357	...838392	644050447	...278602	...522937	...783533
280	...361155	...525707	...706121	...902476	...114852	...343330	...587989	...848911
290	...424291	...589160	...769892	...966566	...179264	...408064	...653048	...914296
300	...487433	...652619	...833669	641030663	...243682	...472805	...718113	...979688
310	...550582	...716084	...897452	...094766	...308106	...537552	...783185	654045086
320	...613737	...779556	...961242	...158876	...372537	...602306	...848263	...110490
330	...676899	...843034	638025038	...222992	...436974	...667066	...913348	...175901
340	...740066	...906518	...088841	...287114	...501418	...731833	...978439	...241319
350	...803240	...970009	...152649	...351243	...565868	...796606	651043537	...306743
360	...866421	635033506	...216465	...415378	...630325	...861386	...108641	...372174
370	...929607	...097009	...280286	...479519	...694788	...926172	...173752	...437611
380	...992800	...160519	...344114	...543667	...759257	...990964	...238870	...503054
390	632056000	...224035	...407949	...607822	...823733	648055763	...303994	...568505
400	...119205	...287557	...471790	...671982	...888215	...120569	...369124	...633962
410	...182417	...351086	...535637	...736150	...952704	...185381	...434261	...699425
420	...245635	...414621	...599490	...800323	645017199	...250200	...499404	...764895
430	...308860	...478162	...663350	...864503	...081701	...315025	...564554	...830371
440	...372091	...541710	...727217	...928690	...146209	...379856	...629711	...895855
450	...435328	...605264	...791089	...992883	...210724	...444694	...694874	...961344
460	...498572	...668825	...854968	642057082	...275245	...509539	...760043	655026840
470	...561821	...732392	...918854	...121288	...339773	...574389	...825219	...092343
480	...625078	...795965	...982746	...185500	...404307	...639247	...890402	...157852
490	...688340	...859545	639046644	...249718	...468847	...704111	...955591	...223368
500	...751609	...923131	...110549	...313943	...533394	...768981	652020786	...288890

Buergi's table (reconstruction, D. Roegel, 2010)

	188000	188500	189000	189500	190000	190500	191000	191500
0	655288890	658573375	661874322	665191815	668525935	671876768	675244395	678628902
10	...354419	...639232	...940510	...258334	...592788	...943955	...311920	...696765
20	...419955	...705096	662006704	...324860	...659647	672011150	...379451	...764635
30	...485497	...770967	...072904	...391392	...726513	...078351	...446989	...832511
40	...551045	...836844	...139112	...457931	...793386	...145559	...514534	...900394
50	...616600	...902727	...205326	...524477	...860265	...212773	...582085	...968285
60	...682162	...968618	...271546	...591030	...927151	...279995	...649643	679036181
70	...747730	659034515	...337773	...657589	...994044	...347223	...717208	...104085
80	...813305	...100418	...404007	...724154	669060943	...414457	...784780	...171995
90	...878886	...166328	...470247	...790727	...127850	...481699	...852358	...239913
100	...944474	...232245	...536494	...857306	...194762	...548947	...919944	...307837
110	656010069	...298168	...602748	...923892	...261682	...616202	...987536	...375767
120	...075670	...364098	...669008	...990484	...328608	...683463	676055134	...443705
130	...141277	...430034	...735275	666057083	...395541	...750732	...122740	...511649
140	...206891	...495977	...801549	...123689	...462480	...818007	...190352	...579600
150	...272512	...561927	...867829	...190301	...529427	...885289	...257971	...647558
160	...338139	...627883	...934116	...256920	...596380	...952577	...325597	...715523
170	...403773	...693846	663000409	...323546	...663339	673019872	...393229	...783495
180	...469413	...759815	...066709	...390178	...730306	...087174	...460869	...851473
190	...535060	...825791	...133016	...456817	...797279	...154483	...528515	...919458
200	...600714	...891774	...199329	...523463	...864258	...221799	...596168	...987450
210	...666374	...957763	...265649	...590115	...931245	...289121	...663827	680055449
220	...732041	660023759	...331976	...656774	...998238	...356450	...731494	...123454
230	...797714	...089761	...398309	...723440	670065238	...423785	...799167	...191467
240	...863394	...155770	...464649	...790112	...132244	...491128	...866847	...259486
250	...929080	...221786	...530995	...856791	...199257	...558477	...934534	...327512
260	...994773	...287808	...597348	...923477	...266277	...625833	677002227	...395545
270	657060472	...353837	...663708	...990169	...333304	...693195	...069927	...463584
280	...126178	...419872	...730074	667056868	...400337	...760565	...137634	...531631
290	...191891	...485914	...796447	...123574	...467377	...827941	...205348	...599684
300	...257610	...551962	...862827	...190286	...534424	...895323	...273068	...667744
310	...323336	...618018	...929213	...257006	...601478	...962713	...340796	...735810
320	...389068	...684079	...995606	...323731	...668538	674030109	...408530	...803884
330	...454807	...750148	664062006	...390464	...735605	...097512	...476271	...871964
340	...520553	...816223	...128412	...457203	...802678	...164922	...544018	...940052
350	...586305	...882305	...194825	...523948	...869758	...232338	...611773	681008146
360	...652063	...948393	...261244	...590701	...936845	...299762	...679534	...076246
370	...717828	661014488	...327670	...657460	671003939	...367192	...747302	...144354
380	...783600	...080589	...394103	...724226	...071039	...434628	...815077	...212469
390	...849379	...146697	...460543	...790998	...138147	...502072	...882858	...280590
400	...915164	...212812	...526989	...857777	...205260	...569522	...950646	...348718
410	...980955	...278933	...593441	...924563	...272381	...636979	678018441	...416853
420	658046753	...345061	...659901	...991355	...339508	...704443	...086243	...484994
430	...112558	...411195	...726367	668058154	...406642	...771913	...154052	...553143
440	...178369	...477337	...792839	...124960	...473783	...839390	...221867	...621298
450	...244187	...543484	...859319	...191773	...540930	...906874	...289690	...689460
460	...310011	...609639	...925805	...258592	...608084	...974365	...357518	...757629
470	...375842	...675800	...992297	...325418	...675245	675041862	...425354	...825805
480	...441680	...741967	665058796	...392250	...742413	...109367	...493197	...893988
490	...507524	...808141	...125302	...459090	...809587	...176878	...561046	...962177
500	...573375	...874322	...191815	...525935	...876768	...244395	...628902	682030373

Buergi's table (reconstruction, D. Roegel, 2010)

	192000	192500	193000	193500	194000	194500	195000	195500
0	682030373	685448893	688884548	692337423	695807605	699295180	702800236	706322861
10	...098576	...517438	...953436	...406657	...877186	...365110	...870516	...393493
20	...166786	...585990	689022332	...475898	...946773	...435046	...940803	...464132
30	...235003	...654549	...091234	...545145	696016368	...504990	703011097	...534779
40	...303226	...723114	...160143	...614400	...085970	...574940	...081399	...605432
50	...371457	...791686	...229059	...683661	...155578	...644898	...151707	...676093
60	...439694	...860266	...297982	...752929	...225194	...714862	...222022	...746760
70	...507938	...928852	...366912	...822205	...294816	...784834	...292344	...817435
80	...576189	...997444	...435849	...891487	...364446	...854812	...362673	...888117
90	...644446	686066044	...504792	...960776	...434082	...924798	...433010	...958805
100	...712711	...134651	...573743	693030072	...503726	...994790	...503353	707029501
110	...780982	...203264	...642700	...099375	...573376	700064790	...573703	...100204
120	...849260	...271885	...711664	...168685	...643033	...134796	...644061	...170914
130	...917545	...340512	...780635	...238002	...712698	...204810	...714425	...241631
140	...985837	...409146	...849614	...307326	...782369	...274830	...784796	...312356
150	683054135	...477787	...918598	...376657	...852047	...344858	...855175	...383087
160	...122441	...546435	...987590	...445994	...921732	...414892	...925560	...453825
170	...190753	...615089	690056589	...515339	...991425	...484934	...995953	...524570
180	...259072	...683751	...125595	...584690	697061124	...554982	704066353	...595323
190	...327398	...752419	...194607	...654049	...130830	...625038	...136759	...666082
200	...395731	...821094	...263627	...723414	...200543	...695100	...207173	...736849
210	...464070	...889776	...332653	...792787	...270263	...765170	...277594	...807623
220	...532417	...958465	...401686	...862166	...339990	...835246	...348021	...878404
230	...600770	687027161	...470727	...931552	...409724	...905330	...418456	...949191
240	...669130	...095864	...539774	694000945	...479465	...975420	...488898	708019986
250	...737497	...164574	...608828	...070345	...549213	701045518	...559347	...090788
260	...805871	...233290	...677889	...139752	...618968	...115622	...629803	...161597
270	...874251	...302013	...746956	...209166	...688730	...185734	...700266	...232414
280	...942639	...370744	...816031	...278587	...758499	...255852	...770736	...303237
290	684011033	...439481	...885113	...348015	...828275	...325978	...841213	...374067
300	...079434	...508225	...954201	...417450	...898057	...396111	...911697	...444904
310	...147842	...576975	691023297	...486892	...967847	...466250	...982188	...515749
320	...216257	...645733	...092399	...556340	698037644	...536397	705052686	...586601
330	...284678	...714498	...161508	...625796	...107448	...606550	...123192	...657459
340	...353107	...783269	...230624	...695259	...177258	...676711	...193704	...728325
350	...421542	...852047	...299747	...764728	...247076	...746879	...264223	...799198
360	...489984	...920833	...368877	...834205	...316901	...817053	...334750	...870078
370	...558433	...989625	...438014	...903688	...386733	...887235	...405283	...940965
380	...626889	688058424	...507158	...973178	...456571	...957424	...475824	709011859
390	...695352	...127229	...576309	695042676	...526417	702027620	...546371	...082760
400	...763821	...196042	...645466	...112180	...596270	...097822	...616926	...153668
410	...832298	...264862	...714631	...181691	...666129	...168032	...687488	...224584
420	...900781	...333688	...783802	...251209	...735996	...238249	...758056	...295506
430	...969271	...402522	...852981	...320734	...805869	...308473	...828632	...366436
440	685037768	...471362	...922166	...390266	...875750	...378704	...899215	...437372
450	...106272	...540209	...991358	...459805	...945638	...448942	...969805	...508316
460	...174782	...609063	692060557	...529351	699015532	...519186	706040402	...579267
470	...243300	...677924	...129763	...598904	...085434	...589438	...111006	...650225
480	...311824	...746792	...198976	...668464	...155342	...659697	...181617	...721190
490	...380355	...815666	...268196	...738031	...225258	...729963	...252235	...792162
500	...448893	...884548	...337423	...807605	...295180	...800236	...322861	...863141

Buergi's table (reconstruction, D. Roegel, 2010)

	196000	196500	197000	197500	198000	198500	199000	199500
0	709863141	713421167	716997026	720590808	724202604	727832502	731480595	735146973
10	...934127	...492509	717068726	...662867	...275024	...905286	...553743	...220488
20	710005121	...563858	...140432	...734934	...347451	...978076	...626899	...294010
30	...076121	...635214	...212146	...807007	...419886	728050874	...700061	...367539
40	...147129	...706578	...283868	...879088	...492328	...123679	...773231	...441076
50	...218144	...777949	...355596	...951176	...564777	...196491	...846409	...514620
60	...289166	...849326	...427332	721023271	...637234	...269311	...919593	...588172
70	...360194	...920711	...499074	...095373	...709698	...342138	...992785	...661730
80	...431230	...992103	...570824	...167483	...782169	...414972	732065984	...735297
90	...502274	714063503	...642581	...239599	...854647	...487814	...139191	...808870
100	...573324	...134909	...714346	...311723	...927132	...560663	...212405	...882451
110	...644381	...206322	...786117	...383855	...999625	...633519	...285626	...956039
120	...715446	...277743	...857896	...455993	725072125	...706382	...358855	736029635
130	...786517	...349171	...929681	...528139	...144632	...779253	...432091	...103238
140	...857596	...420606	718001474	...600291	...217147	...852130	...505334	...176848
150	...928682	...492048	...073275	...672451	...289668	...925016	...578584	...250466
160	...999774	...563497	...145082	...744619	...362197	...997908	...651842	...324091
170	711070874	...634953	...216896	...816793	...434734	729070808	...725107	...397723
180	...141981	...706417	...288718	...888975	...507277	...143715	...798380	...471363
190	...213096	...777887	...360547	...961164	...579828	...216629	...871660	...545010
200	...284217	...849365	...432383	722033360	...652386	...289551	...944947	...618665
210	...355345	...920850	...504226	...105563	...724951	...362480	733018241	...692327
220	...426481	...992342	...576077	...177774	...797523	...435416	...091543	...765996
230	...497624	715063842	...647934	...249992	...870103	...508360	...164852	...839672
240	...568773	...135348	...719799	...322216	...942690	...581311	...238169	...913356
250	...639930	...206861	...791671	...394449	726015284	...654269	...311493	...987048
260	...711094	...278382	...863550	...466688	...087886	...727234	...384824	737060746
270	...782265	...349910	...935437	...538935	...160495	...800207	...458162	...134452
280	...853444	...421445	719007330	...611189	...233111	...873187	...531508	...208166
290	...924629	...492987	...079231	...683450	...305734	...946174	...604861	...281887
300	...995821	...564536	...151139	...755718	...378365	730019169	...678222	...355615
310	712067021	...636093	...223054	...827994	...451003	...092171	...751590	...429350
320	...138228	...707656	...294976	...900277	...523648	...165180	...824965	...503093
330	...209441	...779227	...366906	...972567	...596300	...238197	...898347	...576844
340	...280662	...850805	...438842	723044864	...668960	...311220	...971737	...650601
350	...351890	...922390	...510786	...117168	...741627	...384252	734045134	...724366
360	...423126	...993982	...582737	...189480	...814301	...457290	...118539	...798139
370	...494368	716065582	...654696	...261799	...886982	...530336	...191951	...871919
380	...565617	...137188	...726661	...334125	...959671	...603389	...265370	...945706
390	...636874	...208802	...798634	...406459	727032367	...676449	...338796	738019500
400	...708138	...280423	...870614	...478799	...105070	...749517	...412230	...093302
410	...779408	...352051	...942601	...551147	...177781	...822592	...485672	...167112
420	...850686	...423686	720014595	...623502	...250498	...895674	...559120	...240928
430	...921971	...495329	...086596	...695865	...323223	...968763	...632576	...314753
440	...993264	...566978	...158605	...768234	...395956	731041860	...706039	...388584
450	713064563	...638635	...230621	...840611	...468695	...114965	...779510	...462423
460	...135869	...710299	...302644	...912995	...541442	...188076	...852988	...536269
470	...207183	...781970	...374674	...985386	...614196	...261195	...926473	...610123
480	...278504	...853648	...446712	724057785	...686958	...334321	...999966	...683984
490	...349832	...925333	...518756	...130191	...759726	...407454	735073466	...757852
500	...421167	...997026	...590808	...202604	...832502	...480595	...146973	...831728

Buergi's table (reconstruction, D. Roegel, 2010)

	200000	200500	201000	201500	202000	202500	203000	203500
0	738831728	742534952	746256737	749997177	753756365	757534395	761331362	765147360
10	...905611	...609205	...331363	750072177	...831741	...610149	...407495	...223875
20	...979502	...683466	...405996	...147184	...907124	...685910	...483636	...300397
30	739053400	...757735	...480637	...222199	...982515	...761678	...559784	...376927
40	...127305	...832010	...555285	...297221	754057913	...837455	...635940	...453465
50	...201218	...906294	...629940	...372251	...133319	...913238	...712104	...530010
60	...275138	...980584	...704603	...447288	...208732	...989030	...788275	...606563
70	...349065	743054882	...779274	...522333	...284153	758064829	...864454	...683124
80	...423000	...129188	...853952	...597385	...359581	...140635	...940640	...759692
90	...496943	...203501	...928637	...672445	...435017	...216449	762016834	...836268
100	...570892	...277821	747003330	...747512	...510461	...292271	...093036	...912852
110	...644849	...352149	...078030	...822587	...585912	...368100	...169245	...989443
120	...718814	...426484	...152738	...897669	...661370	...443937	...245462	766066042
130	...792786	...500827	...227453	...972759	...736837	...519781	...321687	...142649
140	...866765	...575177	...302176	751047856	...812310	...595633	...397919	...219263
150	...940752	...649534	...376906	...122961	...887792	...671493	...474159	...295885
160	740014746	...723899	...451644	...198073	...963280	...747360	...550406	...372514
170	...088747	...798272	...526389	...273193	755038777	...823235	...626661	...449152
180	...162756	...872651	...601142	...348320	...114281	...899117	...702924	...525797
190	...236772	...947039	...675902	...423455	...189792	...975007	...779194	...602449
200	...310796	744021433	...750669	...498597	...265311	759050904	...855472	...679109
210	...384827	...095835	...825444	...573747	...340837	...126809	...931758	...755777
220	...458866	...170245	...900227	...648905	...416372	...202722	763008051	...832453
230	...532911	...244662	...975017	...724069	...491913	...278642	...084352	...909136
240	...606965	...319087	748049815	...799242	...567462	...354570	...160660	...985827
250	...681025	...393518	...124619	...874422	...643019	...430506	...236976	767062526
260	...755094	...467958	...199432	...949609	...718583	...506449	...313300	...139232
270	...829169	...542405	...274252	752024804	...794155	...582399	...389631	...215946
280	...903252	...616859	...349079	...100007	...869735	...658358	...465970	...292667
290	...977342	...691321	...423914	...175217	...945322	...734323	...542317	...369397
300	741051440	...765790	...498757	...250434	756020916	...810297	...618671	...446134
310	...125545	...840266	...573606	...325659	...096518	...886278	...695033	...522878
320	...199658	...914750	...648464	...400892	...172128	...962267	...771402	...599631
330	...273778	...989242	...723329	...476132	...247745	760038263	...847779	...676390
340	...347905	745063741	...798201	...551380	...323370	...114267	...924164	...753158
350	...422040	...138247	...873081	...626635	...399002	...190278	764000557	...829933
360	...496182	...212761	...947968	...701897	...474642	...266297	...076957	...906716
370	...570332	...287282	749022863	...777168	...550290	...342324	...153364	...983507
380	...644489	...361811	...097765	...852445	...625945	...418358	...229780	768060305
390	...718653	...436347	...172675	...927730	...701607	...494400	...306203	...137111
400	...792825	...510891	...247592	753003023	...777277	...570449	...382633	...213925
410	...867004	...585442	...322517	...078324	...852955	...646506	...459072	...290747
420	...941191	...660000	...397449	...153631	...928640	...722571	...535518	...367576
430	742015385	...734566	...472389	...228947	757004333	...798643	...611971	...444412
440	...089587	...809140	...547336	...304270	...080034	...874723	...688432	...521257
450	...163796	...883721	...622291	...379600	...155742	...950810	...764901	...598109
460	...238012	...958309	...697253	...454938	...231457	761026906	...841378	...674969
470	...312236	746032905	...772223	...530284	...307180	...103008	...917862	...751836
480	...386467	...107508	...847200	...605637	...382911	...179119	...994354	...828711
490	...460706	...182119	...922185	...680997	...458649	...255236	765070853	...905594
500	...534952	...256737	...997177	...756365	...534395	...331362	...147360	...982485

Buergi's table (reconstruction, D. Roegel, 2010)

	204000	204500	205000	205500	206000	206500	207000	207500
0	768982485	772836832	776710499	780603581	784516177	788448384	792400300	796372024
10	769059383	...914116	...788170	...681642	...594629	...527229	...479540	...451661
20	...136289	...991408	...865849	...759710	...673088	...606081	...558788	...531306
30	...213203	773068707	...943535	...837786	...751555	...684942	...638043	...610959
40	...290124	...146014	777021230	...915870	...830031	...763810	...717307	...690620
50	...367053	...223328	...098932	...993961	...908514	...842687	...796579	...770289
60	...443990	...300650	...176642	781072061	...987004	...921571	...875859	...849966
70	...520934	...377981	...254360	...150168	785065503	789000463	...955146	...929651
80	...597886	...455318	...332085	...228283	...144010	...079363	793034442	797009344
90	...674846	...532664	...409818	...306406	...222524	...158271	...113745	...089045
100	...751814	...610017	...487559	...384536	...301046	...237187	...193057	...168754
110	...828789	...687378	...565308	...462675	...379576	...316111	...272376	...248471
120	...905772	...764747	...643064	...540821	...458114	...395042	...351703	...328196
130	...982762	...842123	...720829	...618975	...536660	...473982	...431038	...407929
140	770059760	...919508	...798601	...697137	...615214	...552929	...510381	...487669
150	...136766	...996900	...876381	...775307	...693775	...631884	...589732	...567418
160	...213780	774074299	...954168	...853484	...772345	...710848	...669091	...647175
170	...290801	...151707	778031964	...931670	...850922	...789819	...748458	...726940
180	...367831	...229122	...109767	782009863	...929507	...868798	...827833	...806712
190	...444867	...306545	...187578	...088064	786008100	...947785	...907216	...886493
200	...521912	...383975	...265397	...166273	...086701	790026779	...986607	...966282
210	...598964	...461414	...343223	...244489	...165310	...105782	794066005	798046078
220	...676024	...538860	...421058	...322714	...243926	...184793	...145412	...125883
230	...753092	...616314	...498900	...400946	...322551	...263811	...224826	...205695
240	...830167	...693775	...576750	...479186	...401183	...342838	...304249	...285516
250	...907250	...771245	...654607	...557434	...479823	...421872	...383679	...365345
260	...984341	...848722	...732473	...635690	...558471	...500914	...463118	...445181
270	771061439	...926207	...810346	...713953	...637127	...579964	...542564	...525026
280	...138545	775003699	...888227	...792225	...715790	...659022	...622018	...604878
290	...215659	...081200	...966116	...870504	...794462	...738088	...701480	...684739
300	...292781	...158708	779044012	...948791	...873141	...817162	...780951	...764607
310	...369910	...236224	...121917	783027086	...951829	...896244	...860429	...844484
320	...447047	...313747	...199829	...105389	787030524	...975333	...939915	...924368
330	...524192	...391279	...277749	...183699	...109227	791054431	795019409	799004260
340	...601344	...468818	...355677	...262018	...187938	...133536	...098911	...084161
350	...678504	...546365	...433612	...340344	...266657	...212649	...178421	...164069
360	...755672	...623919	...511556	...418678	...345383	...291771	...257938	...243986
370	...832848	...701482	...589507	...497020	...424118	...370900	...337464	...323910
380	...910031	...779052	...667466	...575369	...502860	...450037	...416998	...403842
390	...987222	...856630	...745433	...653727	...581611	...529182	...496540	...483783
400	772064421	...934216	...823407	...732092	...660369	...608335	...576089	...563731
410	...141627	776011809	...901389	...810465	...739135	...687496	...655647	...643688
420	...218841	...089410	...979380	...888846	...817909	...766665	...735213	...723652
430	...296063	...167019	780057377	...967235	...896691	...845841	...814786	...803624
440	...373293	...244636	...135383	784045632	...975480	...925026	...894368	...883605
450	...450530	...322260	...213397	...124037	788054278	792004218	...973957	...963593
460	...527775	...399892	...291418	...202449	...133083	...083419	796053554	800043589
470	...605028	...477532	...369447	...280869	...211896	...162627	...133160	...123594
480	...682288	...555180	...447484	...359297	...290718	...241843	...212773	...203606
490	...759556	...632836	...525529	...437733	...369547	...321067	...292394	...283626
500	...836832	...710499	...603581	...516177	...448384	...400300	...372024	...363655

Buergi's table (reconstruction, D. Roegel, 2010)

	208000	208500	209000	209500	210000	210500	211000	211500
0	800363655	804375293	808407039	812458993	816531257	820623932	824737120	828870925
10	...443691	...455731	...487880	...540239	...612910	...705994	...819594	...953812
20	...523736	...536176	...568729	...621493	...694571	...788064	...902076	829036707
30	...603788	...616630	...649585	...702755	...776241	...870143	...984566	...119611
40	...683848	...697092	...730450	...784026	...857918	...952230	825067064	...202523
50	...763917	...777561	...811323	...865304	...939604	821034326	...149571	...285443
60	...843993	...858039	...892205	...946590	817021298	...116429	...232086	...368372
70	...924077	...938525	...973094	813027885	...103000	...198541	...314609	...451308
80	801004170	805019019	809053991	...109188	...184710	...280660	...397141	...534254
90	...084270	...099521	...134897	...190499	...266429	...362789	...479680	...617207
100	...164379	...180031	...215810	...271818	...348155	...444925	...562228	...700169
110	...244495	...260549	...296732	...353145	...429890	...527069	...644784	...783139
120	...324620	...341075	...377661	...434480	...511633	...609222	...727349	...866117
130	...404752	...421609	...458599	...515824	...593384	...691383	...809922	...949104
140	...484893	...502151	...539545	...597175	...675144	...773552	...892503	830032099
150	...565041	...582701	...620499	...678535	...756911	...855729	...975092	...115102
160	...645198	...663259	...701461	...759903	...838687	...937915	826057689	...198113
170	...725362	...743826	...782431	...841279	...920471	822020109	...140295	...281133
180	...805535	...824400	...863409	...922663	818002263	...102311	...222909	...364161
190	...885715	...904983	...944396	814004055	...084063	...184521	...305532	...447198
200	...965904	...985573	810025390	...085456	...165872	...266739	...388162	...530242
210	802046100	806066172	...106393	...166864	...247688	...348966	...470801	...613295
220	...126305	...146778	...187403	...248281	...329513	...431201	...553448	...696357
230	...206518	...227393	...268422	...329706	...411346	...513444	...636103	...779426
240	...286738	...308016	...349449	...411139	...493187	...595696	...718767	...862504
250	...366967	...388646	...430484	...492580	...575036	...677955	...801439	...945591
260	...447204	...469285	...511527	...574029	...656894	...760223	...884119	831028685
270	...527448	...549932	...592578	...655487	...738759	...842499	...966807	...111788
280	...607701	...630587	...673637	...736952	...820633	...924783	827049504	...194899
290	...687962	...711250	...754705	...818426	...902515	823007076	...132209	...278019
300	...768231	...791921	...835780	...899908	...984406	...089376	...214922	...361146
310	...848507	...872601	...916864	...981398	819066304	...171685	...297644	...444283
320	...928792	...953288	...997955	815062896	...148211	...254002	...380373	...527427
330	803009085	807033983	811079055	...144402	...230126	...336328	...463112	...610580
340	...089386	...114687	...160163	...225916	...312049	...418661	...545858	...693741
350	...169695	...195398	...241279	...307439	...393980	...501003	...628612	...776910
360	...250012	...276118	...322403	...388970	...475919	...583353	...711375	...860088
370	...330337	...356845	...403535	...470509	...557867	...665712	...794146	...943274
380	...410670	...437581	...484676	...552056	...639823	...748078	...876926	832026468
390	...491011	...518325	...565824	...633611	...721787	...830453	...959714	...109671
400	...571360	...599077	...646981	...715174	...803759	...912836	828042509	...192882
410	...651717	...679836	...728146	...796746	...885739	...995227	...125314	...276101
420	...732083	...760604	...809318	...878326	...967728	824077627	...208126	...359329
430	...812456	...841380	...890499	...959913	820049724	...160035	...290947	...442565
440	...892837	...922165	...971688	816041509	...131729	...242451	...373776	...525809
450	...973226	808002957	812052886	...123114	...213743	...324875	...456614	...609061
460	804053624	...083757	...134091	...204726	...295764	...407308	...539459	...692322
470	...134029	...164565	...215304	...286346	...377794	...489748	...622313	...775592
480	...214442	...245382	...296526	...367975	...459831	...572197	...705175	...858869
490	...294864	...326206	...377755	...449612	...541877	...654654	...788046	...942155
500	...375293	...407039	...458993	...531257	...623932	...737120	...870925	833025449

Buergi's table (reconstruction, D. Roegel, 2010)

	212000	212500	213000	213500	214000	214500	215000	215500
0	833025449	837200797	841397074	845614383	849852830	854112521	858393564	862696064
10	...108752	...284518	...481213	...698944	...937815	...197933	...479403	...782333
20	...192063	...368246	...565361	...783514	850022809	...283352	...565251	...868611
30	...275382	...451983	...649518	...868092	...107811	...368781	...651107	...954898
40	...358709	...535728	...733683	...952679	...192822	...454218	...736973	863041194
50	...442045	...619482	...817856	846037274	...277841	...539663	...822846	...127498
60	...525390	...703244	...902038	...121878	...362869	...625117	...908729	...213811
70	...608742	...787014	...986228	...206490	...447905	...710580	...994619	...300132
80	...692103	...870793	842070427	...291111	...532950	...796051	859080519	...386462
90	...775472	...954580	...154634	...375740	...618003	...881530	...166427	...472801
100	...858850	838038375	...238849	...460378	...703065	...967018	...252344	...559148
110	...942236	...122179	...323073	...545024	...788136	855052515	...338269	...645504
120	834025630	...205991	...407306	...629678	...873214	...138020	...424203	...731868
130	...109032	...289812	...491546	...714341	...958302	...223534	...510145	...818242
140	...192443	...373641	...575795	...799013	851043397	...309056	...596096	...904623
150	...275863	...457478	...660053	...883692	...128502	...394587	...682056	...991014
160	...359290	...541324	...744319	...968381	...213615	...480127	...768024	864077413
170	...442726	...625178	...828593	847053078	...298736	...565675	...854001	...163821
180	...526170	...709040	...912876	...137783	...383866	...651231	...939986	...250237
190	...609623	...792911	...997168	...222497	...469004	...736797	860025980	...336662
200	...693084	...876791	843081467	...307219	...554151	...822370	...111983	...423096
210	...776553	...960678	...165775	...391950	...639307	...907952	...197994	...509538
220	...860031	839044574	...250092	...476689	...724471	...993543	...284014	...595989
230	...943517	...128479	...334417	...561437	...809643	856079143	...370042	...682449
240	835027011	...212392	...418750	...646193	...894824	...164750	...456079	...768917
250	...110514	...296313	...503092	...730957	...980013	...250367	...542125	...855394
260	...194025	...380243	...587443	...815730	852065211	...335992	...628179	...941879
270	...277544	...464181	...671801	...900512	...150418	...421626	...714242	865028374
280	...361072	...548127	...756169	...985302	...235633	...507268	...800313	...114876
290	...444608	...632082	...840544	848070101	...320857	...592918	...886393	...201388
300	...528153	...716045	...924928	...154908	...406089	...678578	...972482	...287908
310	...611705	...800017	844009321	...239723	...491329	...764246	861058579	...374437
320	...695267	...883997	...093722	...324547	...576578	...849922	...144685	...460974
330	...778836	...967985	...178131	...409379	...661836	...935607	...230799	...547520
340	...862414	840051982	...262549	...494220	...747102	857021301	...316922	...634075
350	...946000	...135987	...346975	...579070	...832377	...107003	...403054	...720639
360	836029595	...220001	...431410	...663928	...917660	...192713	...489194	...807211
370	...113198	...304023	...515853	...748794	853002952	...278433	...575343	...893791
380	...196809	...388053	...600305	...833669	...088252	...364161	...661501	...980381
390	...280429	...472092	...684765	...918552	...173561	...449897	...747667	866066979
400	...364057	...556139	...769233	849003444	...258878	...535642	...833842	...153585
410	...447693	...640195	...853710	...088345	...344204	...621396	...920025	...240201
420	...531338	...724259	...938195	...173253	...429539	...707158	862006217	...326825
430	...614991	...808331	845022689	...258171	...514882	...792928	...092418	...413457
440	...698653	...892412	...107191	...343097	...600233	...878708	...178627	...500099
450	...782323	...976501	...191702	...428031	...685593	...964496	...264845	...586749
460	...866001	841060599	...276221	...512974	...770962	858050292	...351071	...673407
470	...949687	...144705	...360749	...597925	...856339	...136097	...437307	...760075
480	837033382	...228819	...445285	...682885	...941724	...221911	...523550	...846751
490	...117086	...312942	...529830	...767853	854027119	...307733	...609803	...933436
500	...200797	...397074	...614383	...852830	...112521	...393564	...696064	867020129

Buergi's table (reconstruction, D. Roegel, 2010)

	216000	216500	217000	217500	218000	218500	219000	219500
0	867020129	871365868	875733388	880122800	884534213	888967737	893423483	897901562
10	...106831	...453004	...820962	...210812	...622666	889056634	...512825	...991352
20	...193542	...540149	...908544	...298833	...711129	...145539	...602176	898081151
30	...280261	...627303	...996134	...386863	...799600	...234454	...691537	...170960
40	...366989	...714466	876083734	...474902	...888080	...323377	...780906	...260777
50	...453726	...801638	...171342	...562949	...976568	...412310	...870284	...350603
60	...540471	...888818	...258960	...651006	885065066	...501251	...959671	...440438
70	...627225	...976007	...346585	...739071	...153573	...590201	894049067	...530282
80	...713988	872063204	...434220	...827145	...242088	...679160	...138472	...620135
90	...800759	...150411	...521864	...915227	...330612	...768128	...227886	...709997
100	...887539	...237626	...609516	881003319	...419145	...857105	...317308	...799868
110	...974328	...324849	...697177	...091419	...507687	...946090	...406740	...889748
120	868061125	...412082	...784846	...179528	...596238	890035085	...496181	...979637
130	...147932	...499323	...872525	...267646	...684797	...124088	...585630	899069535
140	...234746	...586573	...960212	...355773	...773366	...213101	...675089	...159442
150	...321570	...673832	877047908	...443909	...861943	...302122	...764556	...249358
160	...408402	...761099	...135613	...532053	...950529	...391152	...854033	...339283
170	...495243	...848375	...223327	...620206	886039125	...480192	...943518	...429217
180	...582092	...935660	...311049	...708368	...127728	...569240	895033013	...519159
190	...668951	873022954	...398780	...796539	...216341	...658296	...122516	...609111
200	...755817	...110256	...486520	...884719	...304963	...747362	...212028	...699072
210	...842693	...197567	...574269	...972907	...393593	...836437	...301549	...789042
220	...929577	...284887	...662026	882061105	...482233	...925521	...391080	...879021
230	869016470	...372215	...749792	...149311	...570881	891014613	...480619	...969009
240	...103372	...459552	...837567	...237526	...659538	...103715	...570167	900059006
250	...190282	...546898	...925351	...325749	...748204	...192825	...659724	...149012
260	...277201	...634253	878013143	...413982	...836879	...281944	...749290	...239027
270	...364129	...721616	...100945	...502223	...925562	...371073	...838865	...329051
280	...451065	...808989	...188755	...590474	887014255	...460210	...928449	...419084
290	...538011	...896369	...276574	...678733	...102956	...549356	896018041	...509125
300	...624964	...983759	...364401	...767001	...191667	...638511	...107643	...599176
310	...711927	874071157	...452238	...855277	...280386	...727674	...197254	...689236
320	...798898	...158565	...540083	...943563	...369114	...816847	...286874	...779305
330	...885878	...245980	...627937	883031857	...457851	...906029	...376502	...869383
340	...972866	...333405	...715800	...120160	...546597	...995220	...466140	...959470
350	870059864	...420838	...803671	...208472	...635351	892084419	...555787	901049566
360	...146870	...508280	...891552	...296793	...724115	...173627	...645442	...139671
370	...233884	...595731	...979441	...385123	...812887	...262845	...735107	...229785
380	...320908	...683191	879067339	...473461	...901669	...352071	...824780	...319908
390	...407940	...770659	...155246	...561809	...990459	...441306	...914463	...410040
400	...494981	...858136	...243161	...650165	888079258	...530550	897004154	...500181
410	...582030	...945622	...331085	...738530	...168066	...619804	...093855	...590331
420	...669088	875033117	...419019	...826904	...256883	...709066	...183564	...680490
430	...756155	...120620	...506960	...915286	...345708	...798336	...273282	...770658
440	...843231	...208132	...594911	884003678	...434543	...887616	...363010	...860835
450	...930315	...295653	...682871	...092078	...523386	...976905	...452746	...951021
460	871017408	...383182	...770839	...180488	...612239	893066203	...542491	902041216
470	...104510	...470721	...858816	...268906	...701100	...155509	...632246	...131420
480	...191620	...558268	...946802	...357333	...789970	...244825	...722009	...221634
490	...278740	...645824	880034797	...445768	...878849	...334149	...811781	...311856
500	...365868	...733388	...122800	...534213	...967737	...423483	...901562	...402087

Buergi's table (reconstruction, D. Roegel, 2010)

	220000	220500	221000	221500	222000	222500	223000	223500
0	902402087	906925169	911470923	916039461	920630898	925245348	929882927	934543751
10	...492327	907015862	...562070	...131065	...722961	...337873	...975915	...637205
20	...582576	...106564	...653226	...222678	...815033	...430406	930068913	...730669
30	...672835	...197274	...744392	...314300	...907115	...522949	...161920	...824142
40	...763102	...287994	...835566	...405932	...999205	...615502	...254936	...917625
50	...853378	...378723	...926750	...497572	921091305	...708063	...347962	935011116
60	...943664	...469461	912017942	...589222	...183414	...800634	...440996	...104618
70	903033958	...560208	...109144	...680881	...275533	...893214	...534040	...198128
80	...124261	...650964	...200355	...772549	...367660	...985803	...627094	...291648
90	...214574	...741729	...291575	...864226	...459797	926078402	...720157	...385177
100	...304895	...832503	...382804	...955913	...551943	...171010	...813229	...478715
110	...395226	...923286	...474042	917047608	...644098	...263627	...906310	...572263
120	...485565	908014078	...565290	...139313	...736263	...356253	...999401	...665821
130	...575914	...104880	...656546	...231027	...828436	...448889	931092501	...759387
140	...666271	...195690	...747812	...322750	...920619	...541534	...185610	...852963
150	...756638	...286510	...839087	...414482	922012811	...634188	...278728	...946548
160	...847014	...377339	...930371	...506224	...105012	...726851	...371856	936040143
170	...937398	...468176	913021664	...597974	...197223	...819524	...464993	...133747
180	904027792	...559023	...112966	...689734	...289443	...912206	...558140	...227360
190	...118195	...649879	...204277	...781503	...381672	927004897	...651296	...320983
200	...208607	...740744	...295598	...873281	...473910	...097598	...744461	...414615
210	...299027	...831618	...386927	...965069	...566157	...190307	...837635	...508257
220	...389457	...922501	...478266	918056865	...658414	...283026	...930819	...601908
230	...479896	909013393	...569614	...148671	...750680	...375755	932024012	...695568
240	...570344	...104295	...660971	...240486	...842955	...468492	...117215	...789237
250	...660801	...195205	...752337	...332310	...935239	...561239	...210426	...882916
260	...751267	...286125	...843712	...424143	923027532	...653995	...303647	...976605
270	...841743	...377053	...935096	...515985	...119835	...746761	...396878	937070302
280	...932227	...467991	914026490	...607837	...212147	...839535	...490117	...164009
290	905022720	...558938	...117892	...699698	...304468	...932319	...583366	...257726
300	...113222	...649894	...209304	...791568	...396799	928025113	...676625	...351451
310	...203734	...740859	...300725	...883447	...489139	...117915	...769892	...445187
320	...294254	...831833	...392155	...975335	...581487	...210727	...863169	...538931
330	...384783	...922816	...483595	919067233	...673846	...303548	...956456	...632685
340	...475322	910013808	...575043	...159140	...766213	...396378	933049751	...726448
350	...565869	...104810	...666500	...251055	...858590	...489218	...143056	...820221
360	...656426	...195820	...757967	...342981	...950975	...582067	...236371	...914003
370	...746992	...286840	...849443	...434915	924043371	...674925	...329694	938007794
380	...837566	...377868	...940928	...526858	...135775	...767793	...423027	...101595
390	...928150	...468906	915032422	...618811	...228188	...860669	...516369	...195405
400	906018743	...559953	...123925	...710773	...320611	...953555	...609721	...289225
410	...109345	...651009	...215437	...802744	...413043	929046451	...703082	...383054
420	...199956	...742074	...306959	...894724	...505485	...139355	...796452	...476892
430	...290576	...833148	...398490	...986714	...597935	...232269	...889832	...570740
440	...381205	...924232	...490030	920078712	...690395	...325193	...983221	...664597
450	...471843	911015324	...581579	...170720	...782864	...418125	934076619	...758463
460	...562490	...106426	...673137	...262737	...875342	...511067	...170027	...852339
470	...653146	...197536	...764704	...354764	...967830	...604018	...263444	...946224
480	...743812	...288656	...856281	...446799	925060327	...696978	...356870	939040119
490	...834486	...379785	...947866	...538844	...152833	...789948	...450306	...134023
500	...925169	...470923	916039461	...630898	...245348	...882927	...543751	...227936

Buergi's table (reconstruction, D. Roegel, 2010)

	224000	224500	225000	225500	226000	226500	227000	227500
0	939227936	943935600	948666860	953421834	958200641	963003401	967830234	972681260
10	...321859	944029994	...761726	...517176	...296461	...099701	...927017	...778528
20	...415791	...124397	...856603	...612528	...392291	...196011	968023809	...875806
30	...509733	...218809	...951488	...707889	...488130	...292331	...120612	...973093
40	...603684	...313231	949046383	...803260	...583979	...388660	...217424	973070391
50	...697644	...407662	...141288	...898640	...679837	...484999	...314246	...167698
60	...791614	...502103	...236202	...994030	...775705	...581348	...411077	...265015
70	...885593	...596553	...331126	954089429	...871583	...677706	...507918	...362341
80	...979582	...691013	...426059	...184838	...967470	...774073	...604769	...459677
90	940073580	...785482	...521001	...280257	959063367	...870451	...701629	...557023
100	...167587	...879960	...615954	...375685	...159273	...966838	...798500	...654379
110	...261604	...974448	...710915	...471122	...255189	964063235	...895379	...751744
120	...355630	945068946	...805886	...566569	...351114	...159641	...992269	...849120
130	...449666	...163453	...900867	...662026	...447050	...256057	969089168	...946504
140	...543710	...257969	...995857	...757492	...542994	...352483	...186077	974043899
150	...637765	...352495	950090857	...852968	...638949	...448918	...282996	...141303
160	...731829	...447030	...185866	...948453	...734913	...545363	...379924	...238718
170	...825902	...541575	...280884	955043948	...830886	...641817	...476862	...336141
180	...919984	...636129	...375912	...139453	...926869	...738281	...573810	...433575
190	941014076	...730693	...470950	...234967	960022862	...834755	...670767	...531018
200	...108178	...825266	...565997	...330490	...118864	...931239	...767734	...628472
210	...202289	...919848	...661054	...426023	...214876	965027732	...864711	...725934
220	...296409	946014440	...756120	...521566	...310897	...124235	...961697	...823407
230	...390539	...109042	...851195	...617118	...406929	...220747	970058694	...920889
240	...484678	...203653	...946280	...712680	...502969	...317269	...155699	975018381
250	...578826	...298273	951041375	...808251	...599020	...413801	...252715	...115883
260	...672984	...392903	...136479	...903832	...695079	...510342	...349740	...213395
270	...767151	...487542	...231593	...999422	...791149	...606893	...446775	...310916
280	...861328	...582191	...326716	956095022	...887228	...703454	...543820	...408447
290	...955514	...676849	...421849	...190632	...983317	...800024	...640874	...505988
300	942049710	...771517	...516991	...286251	961079415	...896604	...737938	...603539
310	...143915	...866194	...612143	...381879	...175523	...993194	...835012	...701099
320	...238129	...960881	...707304	...477517	...271641	966089793	...932096	...798669
330	...332353	947055577	...802475	...573165	...367768	...186402	971029189	...896249
340	...426586	...150282	...897655	...668822	...463905	...283021	...126292	...993839
350	...520829	...244997	...992845	...764489	...560051	...379649	...223405	976091438
360	...615081	...339722	952088044	...860166	...656207	...476287	...320527	...189047
370	...709342	...434456	...183253	...955852	...752373	...572935	...417659	...286666
380	...803613	...529199	...278471	957051547	...848548	...669592	...514801	...384295
390	...897894	...623952	...373699	...147253	...944733	...766259	...611952	...481933
400	...992183	...718714	...468936	...242967	962040927	...862936	...709113	...579581
410	943086483	...813486	...564183	...338692	...137131	...959622	...806284	...677239
420	...180791	...908268	...659439	...434425	...233345	967056318	...903465	...774907
430	...275109	948003058	...754705	...530169	...329568	...153024	972000655	...872585
440	...369437	...097859	...849981	...625922	...425801	...249739	...097855	...970272
450	...463774	...192669	...945266	...721684	...522044	...346464	...195065	977067969
460	...558120	...287488	953040560	...817457	...618296	...443198	...292285	...165676
470	...652476	...382317	...135864	...913238	...714558	...539943	...389514	...263392
480	...746841	...477155	...231178	958009030	...810829	...636697	...486753	...361119
490	...841216	...572003	...326501	...104831	...907110	...733460	...584001	...458855
500	...935600	...666860	...421834	...200641	963003401	...830234	...681260	...556601

Buerger's table (reconstruction, D. Roegel, 2010)

	228000	228500	229000	229500	230000 ^o	230000
0	977556601	982456378	987380714	992329732	.....0000	997303557
10	...654356	...554623	...479452	...428965	....10000	...403287
20	...752122	...652879	...578200	...528208	....20000	...503027
30	...849897	...751144	...676958	...627461	....30000	...602778
40	...947682	...849419	...775726	...726724	....40000	...702538
50	978045477	...947704	...874503	...825997	....50000	...802308
60	...143281	983045999	...973291	...925279	....60000	...902088
70	...241096	...144304	988072088	993024572	....70000	998001879
80	...338920	...242618	...170895	...123874	....80000	...101679
90	...436754	...340942	...269712	...223187	....90000	...201489
100	...534597	...439276	...368539	...322509	230100000	...301309
110	...632451	...537620	...467376	...421841	....10000	...401139
120	...730314	...635974	...566223	...521183	....20000	...500979
130	...828187	...734338	...665079	...620535	....30000	...600829
140	...926070	...832711	...763946	...719897	....40000	...700690
150	979023962	...931094	...862822	...819269	....50000	...800560
160	...121865	984029488	...961709	...918651	....60000	...900440
170	...219777	...127890	989060605	994018043	....70000	999000330
180	...317699	...226303	...159511	...117445	....80000	...100230
190	...415631	...324726	...258427	...216857	....90000	...200140
200	...513572	...423158	...357353	...316278	230200000	...300060
210	...611524	...521601	...456288	...415710	....10000	...399990
220	...709485	...620053	...555234	...515152	....20000	...499930
230	...807456	...718515	...654190	...614603	....30000	...599880
240	...905436	...816987	...753155	...714065	....40000	...699840
250	980003427	...915468	...852130	...813536	....50000	...799810
260	...101427	985013960	...951116	...913017	....60000	...899790
270	...199437	...112461	990050111	995012509	230270000	999999780
280	...297457	...210973	...149116	...112010	.....10	.....880
290	...395487	...309494	...248131	...211521	.....20	.....980
300	...493527	...408025	...347155	...311042	.....1	.....90
310	...591576	...506565	...446190	...410573	230270022	1000000000
320	...689635	...605116	...545235	...510114		
330	...787704	...703677	...644289	...609665		
340	...885783	...802247	...743354	...709226		
350	...983872	...900827	...842428	...808797		
360	981081970	...999417	...941512	...908378		
370	...180078	986098017	991040606	996007969		
380	...278196	...196627	...139710	...107570		
390	...376324	...295247	...238824	...207181		
400	...474462	...393876	...337948	...306801		
410	...572609	...492516	...437082	...406432		
420	...670766	...591165	...536226	...506073		
430	...768933	...689824	...635379	...605723		
440	...867110	...788493	...734543	...705384		
450	...965297	...887172	...833716	...805054		
460	982063494	...985861	...932900	...904735		
470	...161700	987084559	992032093	997004425		
480	...259916	...183268	...131296	...104126		
490	...358142	...281986	...230509	...203836		
500	...456378	...380714	...329732	...303557		

Also enden sich die
zwo Summen Za-
len in 9. Zyphern/ vñ
ist die Rote
230270022-
230270023+
Die Schwarze
aber ist ganz mit 9.
nollen als 100000000
vnd so dieselben gan-
zen Zalen/ nicht gnug
geben mögen/ so mag
man dieselben 2.3.4.
5.6.7.8.9. zusammen
addieren.