

18	73	443	$\frac{3 \cdot 37}{202} = \frac{3 \cdot 37}{2 \cdot 101}$	nihil dat.	69	2
24	97	587	$\frac{3 \cdot 49}{268} = \frac{3 \cdot 49}{4 \cdot 67}$	nihil dat.	79	3
28	113	683	$\frac{3 \cdot 57}{312} = \frac{9 \cdot 19}{8 \cdot 39} = \frac{3 \cdot 19}{8 \cdot 13}$	nihil dat.	84	3
34	137	827	$\frac{3 \cdot 69}{378} = \frac{23}{2 \cdot 21} = \frac{13}{2 \cdot 3 \cdot 7} \left[\frac{23}{24} \right] \frac{4}{7} \left[\frac{4}{7} \right]; z =$	4. 23; ut ante	93	3
39	157	947	$\frac{3 \cdot 79}{433}$	nihil dat.	100	4
45	181	1091	$\frac{3 \cdot 91}{499} = \frac{3 \cdot 7 \cdot 13}{499}$		244	9
48	193	1163	$\frac{3 \cdot 97}{532} = \frac{3 \cdot 97}{4 \cdot 7 \cdot 19} = \frac{3 \cdot 97}{4 \cdot 133} \left[\frac{97}{2 \cdot 7^2} \right] \frac{3 \cdot 7}{2 \cdot 19} \left[\frac{7^2}{3 \cdot 19} \right] 3^2$			
			$\left[\frac{3^2}{13} \right] \frac{13}{14}$			
				Ergo $z = 3^2 \cdot 7^2 \cdot 13 \cdot 97$. & numeri amicabile		
				fiunt		
				$\left\{ \begin{array}{l} 3^2 \cdot 7^2 \cdot 13 \cdot 97 \cdot 5 \cdot 193 \\ 3^2 \cdot 7^2 \cdot 13 \cdot 97 \cdot 1163 \end{array} \right\}$		

49	197	1187	$\frac{3 \cdot 99}{543} = \frac{9 \cdot 11}{181}$
60	241	1451	$\frac{3 \cdot 121}{664} = \frac{3 \cdot 11^2}{8 \cdot 83}$

69	277	1667	$\frac{3 \cdot 139}{793}$					
79	317	1907	$\frac{3 \cdot 159}{873} = \frac{53}{97}$					
84	337	2027	$\frac{3 \cdot 169}{928} = \frac{3 \cdot 169}{8 \cdot 116} = \frac{3 \cdot 169}{32 \cdot 29}$					
93	373	2243	$\frac{3 \cdot 187}{1027} = \frac{3 \cdot 11 \cdot 17}{13 \cdot 79}$					
100	401	2411	$\frac{3 \cdot 201}{1104} = \frac{3 \cdot 67}{368} = \frac{3 \cdot 67}{16 \cdot 23}$					
244	977	5867	$\frac{3 \cdot 489}{2688} = \frac{3 \cdot 163}{128 \cdot 7} \cdot \frac{163}{4 \cdot 41} \cdot \frac{3 \cdot 41}{32 \cdot 7} \cdot \frac{41}{2 \cdot 3 \cdot 7} \cdot \frac{3^2}{16}$					
			$\frac{3^2}{13} \cdot \frac{13}{16} \cdot \frac{13}{14} \cdot \frac{7}{8}$					

Ergo $s = 3^2 \cdot 7 \cdot 13 \cdot 41 \cdot 163$ & numeri amicabiles erunt

$$\left\{ \begin{array}{l} 3^2 \cdot 7 \cdot 13 \cdot 41 \cdot 163 \cdot 5 \cdot 977 \\ 3^2 \cdot 7 \cdot 13 \cdot 41 \cdot 163 \cdot 5867 \end{array} \right\}$$

Hinc ergo bini prodierunt novi numeri amicabiles.

Exempl. 3.

¶ CXI. Sit $a = 7$; $b = 1$; erit $sa = 8$, $\sqrt{b} = 1$; $m = 8$,
 $M = 3$ $n = 1$

$x = 1$ & numeri amicable: $7(x-1)x$ & $(8x-1)x$, existente $\frac{x}{\sqrt{x}} = \frac{8x}{15x-8}$. Ac primo quidem x debet esse numero

us par: ponatur ergo $x = 2p$; erit $x-1 = 2p-1$; $8x-1 = 16p-1$ & $\frac{x}{\sqrt{x}} = \frac{8p}{15p-4}$; quae aequatio est impossibilis,

nisi potestas binarii in numeratore deprimatur, quia $15p-4 < \sqrt{8p}$. Ergo fiat $p = 4q$, ut sit $x = 8q$; $x-1 = 8q-1$; $8x-1 = 64q-1$ & $\frac{x}{\sqrt{x}} = \frac{8q}{15q-1}$. Nunc sit $q = 2r+1$; erit

$$\frac{x}{\sqrt{x}} = \frac{4(2r+1)}{15r+7} \text{ \& } x-1 = 16r+7; 8x-1 = 128r$$

+ 63, quorum numerorum ut neuter sit per 3 divisibilis, neque erit $r = 3a-1$, neque $r = 3a$. Sit ergo $r = 3s+1$; erit

$$\frac{x}{\sqrt{x}} = \frac{4(6s+3)}{45s+22} \text{ seu } \frac{x}{\sqrt{x}} = \frac{4 \cdot 3(2s+1)}{45s+22} \text{ \& } x-1 = 48s+$$

$$23; 8x-1 = 384s+191$$

Nunc vel ternarius vel quaternarius ex numeratore tolli debet. At ternarius tolli nequit, quia denominator nunquam per 3 est divisibilis; tollatur ergo quaternarius, ad quod pono $s = 2t$ erit.

$$\text{quae } \frac{x}{\sqrt{x}} = \frac{2 \cdot 3(4t+1)}{45t+11}; \text{ nunc sit } t = 2u-1; \text{ erit}$$

$$\frac{x}{\sqrt{x}} = \frac{3(8u-3)}{45u-17}; \text{ ut est } t = 4u-2, \text{ ideoque numeri pri-}$$

$$\text{mi esse debent } x-1 = 192u-73; 8x-1 = 1536u-$$

577

1) u

	$x-1$	$8x-1$	$\frac{z}{fz}$		
1) $n=5$	887	7103	$\frac{3 \cdot 37}{208} = \frac{3 \cdot 37}{16 \cdot 13}$	$\boxed{\frac{37}{2 \cdot 19}}$	$\frac{3 \cdot 19}{8 \cdot 13} \boxed{\frac{19}{4 \cdot 1}}$
			$\frac{3 \cdot 5}{2 \cdot 13}$	$\boxed{\frac{5}{2 \cdot 3}}$	$\frac{3^2}{13}$

Ergo $z = 3^2 \cdot 5 \cdot 19 \cdot 37$ & numeri am-
micabiles erunt:

$$\left\{ \begin{array}{l} 3^2 \cdot 5 \cdot 19 \cdot 37 \cdot 7 \cdot 887 \\ 3^2 \cdot 5 \cdot 19 \cdot 37 \cdot 7103 \end{array} \right\}$$

$n=11$	2039	16319	$\frac{3 \cdot 5 \cdot 17}{4 \cdot 107}$
$n=13$	2423	19391	$\frac{3 \cdot 101}{8 \cdot 71}$
$n=26$	4919	39359	$\frac{3 \cdot 205}{1153}$

Exemplum. 4.

§. CXII. Sit $a = 11$, $b = 1$, erit $fa = m = 12$; $f^b = n = 1$; numeri quaesiti $11(x-1)z$ & $(12x-1)z$; atque

$$\frac{z}{fz} = \frac{12x}{23x-12}$$

Hic ex numeratore vel 3 vel 4 tolli de-
bet:

I. Tollatur 3; ponatur $x = 3p$; erit $\frac{z}{fz} = \frac{12p}{23p-4}$; &
 $p =$

$p = 3q - 1$, erit $\frac{x}{fz} = \frac{4(3q-1)}{23q-9}$; & ob $x = 9q - 3$, q de-

bet esse impar. Sit $q = 2r + 1$, ut fit $x = 18r + 6$, erit $\frac{x}{fz} =$

$$\frac{4(6r+2)}{46r+14} = \frac{4(3r+1)}{23r+7}, \text{ \& } x-1 = 18r+5; 12x-1 = 216r+71.$$

r	$x-1$	$12x-1$	$\frac{x}{fz}$		
0	5	71	$\frac{4}{7}$; $x=4$; num. amic. $\begin{cases} 4-11-5 \\ 4-71 \end{cases}$		
2	41	503	$\frac{4-7}{53}$		
3	59	719	$\frac{4-10}{76} = \frac{2-5}{19}$ imp.		
6	113	1367	$\frac{4-19}{145} = \frac{4-10}{5-29}$ imp.		
7	131	1583	$\frac{4-22}{168} = \frac{11}{21} = \frac{11}{3-7}$ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>11</td></tr><tr><td>12</td></tr></table> $\frac{4}{7}$ fed	11	12
11					
12					

ob factorem 11 hic valor x non valet.

II. Tollatur factor 4, ac ponatur $x = 4q$; ut fit $\frac{x}{fz} =$

$$\frac{12p}{23p-3}, \text{ Jam fit } p = 4q + 1, \text{ erit } \frac{x}{fz} = \frac{3(4q+1)}{23q+5}, \text{ \& } \text{ob}$$

ob $x = 11x$

 q

 0

 1

 13 | 2

$5(3x-)$
 Euler

ob $x = 16q + 4$ numeri primi esse debent $x - 1 = 16q + 3$ & $12x - 1 = 192q + 47$, hinc excludantur valores $q = 14$.

q	$x-1$	$12x-1$	$\frac{x}{\sqrt{z}}$
0	3	47	$\frac{3}{5}$ imposs.
1	19	239	$\frac{3 \cdot 5}{4 \cdot 7} \left[\frac{5}{2 \cdot 3} \right] \frac{3^2}{14} \left[\frac{3^2}{13} \right] \frac{13}{14}; z = 3^2 \cdot 5.$ 13 & numeri amicabiles erunt $\left\{ \begin{array}{l} 3^2 \cdot 5 \cdot 13 \cdot 11 \cdot 19 \\ 3^2 \cdot 5 \cdot 13 \cdot 239 \end{array} \right\}$
13	211	2543	$\frac{3 \cdot 53}{16 \cdot 19} \left[\frac{53}{2 \cdot 27} \right] \frac{81}{8 \cdot 19} \left[\frac{243}{4 \cdot 7 \cdot 13} \right] \frac{7 \cdot 13}{2 \cdot 3 \cdot 19} \left[\frac{13}{2 \cdot 7} \right]$ $\frac{7^2}{3 \cdot 19} \left[\frac{7^2}{3 \cdot 10} \right]$ Ergo $z = 3^2 \cdot 7^2 \cdot 13 \cdot 53$ & numeri amicabiles erunt $\left\{ \begin{array}{l} 3^2 \cdot 7^2 \cdot 13 \cdot 53 \cdot 11 \cdot 211 \\ 3^2 \cdot 7^2 \cdot 13 \cdot 53 \cdot 2543 \end{array} \right\}$

Exemplum 5.

§. CXIII. Sit $a = 5$; $b = 17$; & numeri amicabiles

$5(3x-1)z$ & $17(x-1)z$; erit $\frac{x}{\sqrt{z}} = \frac{18x}{32x-22} = \frac{9x}{16x-11}$;

Euleri Opuscula Tom. II.

N

Cum

Cum x debeat esse numerus par, ponatur $x = 2p$, erit $\frac{z}{\sqrt{z}} =$

$\frac{18p}{32p - 11}$, & ex numeratore $18p$ vel factor 2 vel 3^2 tolli debet,

ne sit numerus redundans. At factor 2 tolli nequit; tollatur ergo factor 9. Ad hoc ponatur $p = 9q + 4$, ut sit $x = 18q + 8$ &

$x - 1 = 18q + 7$ & $3x - 1 = 54q + 23$, erit $\frac{z}{\sqrt{z}} = \frac{2(9q+4)}{32q+13}$

q	$x-1$	$12x-1$	$\frac{z}{\sqrt{z}}$
0	7	23	$\frac{8}{13}$ imposs.
2	43	131	$\frac{4 \cdot 11}{7 \cdot 11} = \frac{4}{7}$; $z = 4$ & N.A. $\{4 \cdot 5 \cdot 131\}$ $\{4 \cdot 17 \cdot 43\}$
4	79	239	$\frac{16 \cdot 5}{3 \cdot 47}$
5	97	293	$\frac{2 \cdot 49}{173}$
17	313	941	$\frac{2 \cdot 157}{557}$
19	349	1049	$\frac{2 \cdot 5 \cdot 7}{27 \cdot 23}$
20	367	1103	$\frac{16 \cdot 23}{653}$
24	439	1319	$\frac{8 \cdot 5 \cdot 11}{781}$ inut. $= \frac{8 \cdot 5}{71}$

&
227
cum
esse
 $\frac{z}{\sqrt{z}}$
3
 $\frac{z}{\sqrt{z}}$
 $\frac{z}{\sqrt{z}}$
r
2
3
6
13

Exem-

Exempl. 6.

§. CXIV. Sit $a = 37$ & $b = 227$, erit $f_a = 38$, $f_b = 228$,
& $\frac{a}{b} = \frac{1}{6}$; unde si numeri amicabile snt $37(6x-1)z$ &

$227(x-1)z$, fiet $\frac{z}{f_z} = \frac{6 \cdot 38x}{449x - 254} = \frac{4 \cdot 3 \cdot 19x}{449x - 254}$: Ubi

cum x debeat esse numerus par, ponatur $x = 2p$, ut numeri primi
esse debeant $x-1 = 2p-1$ & $6x-1 = 12p-1$, eritque

$\frac{z}{f_z} = \frac{4 \cdot 3 \cdot 19p}{449p - 132}$. Nunc ex numeratore vel factor 4 vel factor
3 tolli debet.

I. Tollatur factor 3, ad hoc ponatur $p = 3q$, ut fit

$\frac{z}{f_z} = \frac{4 \cdot 3 \cdot 19q}{449q - 44}$; nunc fiat $q = 3r+1$, eritque;

$\frac{z}{f_z} = \frac{4 \cdot 19(3r+1)}{449r + 135}$. & $p = 9r+3$; $x-1 = 18r+5$
 $6x-1 = 108r+35$

r	$x-1$	$6x-1$	$\frac{z}{f_z}$
2	41	231	$\frac{4 \cdot 19 \cdot 7}{1033}$
3	59	359	$\frac{4 \cdot 19 \cdot 10}{1483} = \frac{4 \cdot 5}{3 \cdot 13}$
6	113	683	$\frac{4 \cdot 19 \cdot 19}{3 \cdot 23 \cdot 41}$
13	239	1439	$\frac{4 \cdot 19 \cdot 49}{4 \cdot 1493}$

17	311	1871	16.13.19 8.971						
23	401	2411	$\frac{4 \cdot 19 \cdot 67}{10013} = \frac{4 \cdot 67}{17 \cdot 31}$	$\frac{67}{4 \cdot 17}$	$\frac{16}{31}$	$\frac{16}{31}$	8	20	
			$z = 16 \cdot 67$						
			Num. Amicab.	{ 16.67.37.2411 16.67.227.401 }					
117	2111	12671	$\frac{4 \cdot 19 \cdot 352}{52668} = \frac{118 \cdot 11 \cdot 19}{4 \cdot 7 \cdot 9 \cdot 11 \cdot 19} = \frac{32}{63}$					15	47
			$z = 32$						
			& num. amic.	{ 32.37.12671 32.227.2111 }					

II. Tollatur factor 4; ponatur $p = 4r$; erit $\frac{z}{\sqrt{z}} = \frac{4 \cdot 3 \cdot 19q}{449q - 33}$
 nunc sit $q = 4r + 1$, erit $p = 16r + 4$; $x - 1 = 32r + 7$;
 $6x - 1 = 192r + 47$ atque $\frac{z}{\sqrt{z}} = \frac{3 \cdot 19(4r + 1)}{449r + 104}$

	r	$x - 1$	$6x - 1$	$\frac{z}{\sqrt{z}}$							
	0	7	47	$\frac{3 \cdot 19}{8 \cdot 13} \cdot \frac{19}{4 \cdot 5}$	$\frac{3 \cdot 5}{2 \cdot 13} \cdot \frac{5}{2 \cdot 3}$	$\frac{3^2}{13}$	$z = 3^2 \cdot 5 \cdot 19$	24	24		
				& num. Am. { 3 ² .5.19.37.47 3 ² .5.19.217.7 }							

101

2	71	481
8	263	1583

$$\frac{9.19}{2.167}$$

$$\frac{3.19.33}{16.3.7.11} = \frac{3.19}{16.7} \left| \frac{19}{4.5} \right| \left| \frac{3.5}{4.7} \right| \left| \frac{5}{1.3} \right|$$

$$\frac{3.}{2.7} \left| \frac{3^2}{13} \right| \frac{13}{14}$$

$x = 3^2 \cdot 5 \cdot 13 \cdot 19 \&$

Num. Amic. $\left\{ \begin{array}{l} 3^2 \cdot 5 \cdot 13 \cdot 19 \cdot 37 \cdot 1583 \\ 3^2 \cdot 5 \cdot 13 \cdot 19 \cdot 227 \cdot 263 \end{array} \right\}$

15	487	2927
23	743	4463
26	839	5039
30	987	5807
41	1319	7919

$$\frac{3.19.61}{7.977}$$

$$\frac{9.19.31}{9.19.61} = \frac{31}{61}$$

$$\frac{3.19.105}{2.3.13.151} = \frac{3.5.7.19}{2.13.151}$$

$$\frac{3.19.11}{2.617}$$

$$\frac{3.19.165}{9.111.17} = \frac{5.19}{11.17}$$

Exempl. 7.

§. CXV. Sit $a = 79$; $b = 11.19 = 209$; $\sqrt{a} = 80$; $\sqrt{b} = 240$ erit $m = 1, n = 3$, & numeri amicales sint $79(3x-1)x$ & $11.19(x-1)x$, erit

$$\frac{x}{\sqrt{z}} = \frac{240x}{416x-288} = \frac{120x}{223x-144}$$

N. 3 Sit

Sit $x = 2p$ erit $\frac{x}{\sqrt{z}} = \frac{120p}{223p-72}$, & numeri primi esse debent
 $2p-1$ & $6p-1$

Nunc autem ex numeratore 120p vel factor 8 vel 3 tolli debet.

I. Tollatur factor 3; sit $p = 9q$ erit $\frac{x}{\sqrt{z}} = \frac{120q}{223q-8}$

& sit $q = 3r-1$, ut sit $\frac{x}{\sqrt{z}} = \frac{40(3r-1)}{223r-77}$; $p = 27r-9$
 & $x-1 = 54r-19$; ac $3x-1 = 162r-55$.

Nunc autem ob 40 numerum redundantem vel 5 vel 4 tolli debet.

a) Tollatur 5, sitque $r = 5s-1$; erit $\frac{x}{\sqrt{z}} = \frac{8(15s-4)}{223s-60}$

& numeros primos esse oportet $x-1 = 470s-73$; $3x-1 = 810s-217$.
 Ac ne ternarius denuo in numeratorem intret, excludendi sunt casus $s = 3a-1$. Hinc autem nihil invenitur.

b) Cum sit $\frac{x}{\sqrt{z}} = \frac{40(3r-1)}{223r-77}$ tollatur 4: sitque $r =$

$4s-1$; erit $\frac{x}{\sqrt{z}} = \frac{10(12s-1)}{223s-75} = \frac{40(3s-1)}{223s-75}$; sit

porro $s = 4t+1$ erit $\frac{x}{\sqrt{z}} = \frac{10(12t+2)}{223t+37} = \frac{20(6t+1)}{223t+37}$. Sit

porro $t = 2u-1$; erit $\frac{x}{\sqrt{z}} = \frac{10(13u-5)}{223u-93}$; & ob $r = 16t$

$+ 3 = 32u-13$; erit $x-1 = 1728u-721$

$3x-1 = 5184u-2161$

At hos numeros non reddit primos minor valor ipsius u quam 16;

unde sit $\frac{x}{\sqrt{z}} = \frac{2 \cdot 11 \cdot 17}{1 \cdot 139}$, qui ob factorem 11 est inutilis.

II. Er-

II.

$p = 8$

$\frac{x}{\sqrt{z}} =$

$x =$

Unde v

r

2

3

3²

{ 3²
3²

II. Ergo ex aeq. $\frac{x}{\sqrt{x}} = \frac{120q}{223p-72}$ tollatur factor 8. Ponatur

$p = 8q$, erit $\frac{x}{\sqrt{x}} = \frac{120q}{223q-9}$ & nunc sit $q = 8r - 1$ erit

$\frac{x}{\sqrt{x}} = \frac{3 \cdot 5(8r-1)}{223r-29}$; at ob $p = 64r - 8$, erit

$x - 1 = 128r - 17$; $3x - 1 = 384r - 49$

Unde valores excluduntur $r = 3a + 1$; & $r = 5a + 1$.

r	$x - 1$	$3x - 1$	$\frac{x}{\sqrt{x}}$
2	239	719	$\frac{3 \cdot 5^2}{139}$
3	367	1103	$\frac{3 \cdot 23}{128} \cdot \frac{23}{8 \cdot 3} \cdot \frac{3^2}{16} \cdot \frac{3^2}{13} \cdot \frac{13}{16} \cdot \frac{13}{14} \cdot \frac{7}{8}$

Ergo $x = 3^2 \cdot 7 \cdot 13 \cdot 23$ vel

$\frac{3 \cdot 23}{128} \cdot \frac{23}{8 \cdot 3} \cdot \frac{3^2}{16} \cdot \frac{3^2}{8 \cdot 5} \cdot \frac{5}{6}$; ergo $x =$

$3^2 \cdot 5 \cdot 23$

& numeri amabiles erunt.

$\left\{ \begin{matrix} 3^2 \cdot 7 \cdot 13 \cdot 23 \cdot 79 \cdot 1103 \\ 3^2 \cdot 7 \cdot 13 \cdot 23 \cdot 11 \cdot 19 \cdot 367 \end{matrix} \right\}$ vel $\left\{ \begin{matrix} 3^2 \cdot 5 \cdot 23 \cdot 79 \cdot 1103 \\ 3^2 \cdot 5 \cdot 23 \cdot 11 \cdot 19 \cdot 367 \end{matrix} \right\}$

Exempl. 8.

§. CXVI. Sit $a = 17 \cdot 19$; $b = 11 \cdot 59$; erit $\sqrt{a} = 18 \cdot 20$,
 $\sqrt{b} =$

$\sqrt{b} = 12.60$, & $m = 1$, $n = 2$. Si ergo num. am. ponantur.

$$\frac{17.19(2x^2-1)z}{11.59(x-1)z} \text{ erit } \frac{z}{\sqrt{z}} = \frac{720x}{1295x-972} : \text{ Sit } x = 2p$$

$$\text{erit } \frac{z}{\sqrt{z}} = \frac{720p}{1295p-486}; \text{ atque } \begin{matrix} x-1=2p-1 \\ 2x-1=4p-1 \end{matrix}; \text{ quorum}$$

ut neuter sit divisibilis per 3, debet esse $p = 3q$, ut sit.

$$\frac{z}{\sqrt{z}} = \frac{720q}{1295q-162}; \& \begin{matrix} x-1=6q-1 \\ 2x-1=12q-1 \end{matrix}$$

Tollatur ex num. factor 16, sitque $q = 2r$ erit

$$\frac{z}{\sqrt{z}} = \frac{720r}{1295r-81}; \text{ nunc sit } r = 16s-1 \text{ erit}$$

$$\frac{z}{\sqrt{z}} = \frac{45(16s-1)}{1295s-86} \& \begin{matrix} x-1=192s-13 \\ 2x-1=384s-25 \end{matrix}$$

Sit $s = 1$; erit $x-1 = 179$; $2x-1 = 359$ &

$$\frac{z}{\sqrt{z}} = \frac{45.15}{1209} = \frac{225}{403} = \frac{3^2 \cdot 5^2}{13 \cdot 31} \quad \left[\frac{3^2}{13} \right] \quad \frac{5^2}{31} \quad \left[\frac{5^2}{31} \right]$$

Ergo $z = 3^2 \cdot 5^2$ & numeri amicable erunt

$$\left\{ \begin{matrix} 3^2 \cdot 5^2 \cdot 17 \cdot 19 \cdot 359 \\ 3^2 \cdot 5^2 \cdot 11 \cdot 59 \cdot 179 \end{matrix} \right\}$$

Scholion.

§. CXVII. Hæc ultima methodus in problemate 5. exposita prorsus diversa est a methodo præcedente, quam problemata 4 priora complectuntur: dum in hac factor communis quæritur, in illa autem datur. Utraque tamen singulari præstantiæ genere est prædita, ut altera sine subsidio alterius non satis apta sit ad multitudinem

tudinem numerorum amicabilium augendam. Posterior enim methodus suppeditate ejusmodi factores communes, quos ad usum prioris vix suspicari licuisset: prior vero suggerit reliquos factores huic instituto idoneos. Ceterum cuncta, quæ hic tradidi, specimen continent methodi summæ incertæ, quam, quantum licuit, ad regulas algebraicas reduxi, ut vaga tentandi incertitudo restringeretur. Coronidis ergo loco ultra sexaginta numerorum amicabilium paria subjungam, quos his methodis elicui.

Catalogus numerorum amicabilium.

I { 2 ⁵ . 5. 11)	II { 2 ⁵ . 23. 47)	III { 2 ⁷ . 191. 383)
2 ⁵ . 71)	2 ⁵ . 1151)	2 ⁷ . 73727)
IV { 2 ⁵ . 23. 5. 137)	V { 3 ⁵ . 7. 13. 5. 17)	
2 ⁵ . 23. 827)	3 ⁵ . 7. 13. 107)	
VI { 3 ⁵ . 5. 13. 11. 19)	VII { 3 ⁵ . 7 ⁵ . 13. 5. 41)	
3 ⁵ . 5. 13. 239)	3 ⁵ . 7 ⁵ . 13. 251)	
VIII { 3 ⁵ . 5. 7. 53. 1889]	IX { 2 ⁵ . 13. 17. 389. 509]	
3 ⁵ . 5. 7. 102059]	2 ⁵ . 13. 17. 198899]	
X { 3 ⁵ . 5. 19. 37. 7. 887]	XI { 3 ⁵ . 5. 11. 29. 89]	
3 ⁵ . 5. 19. 37. 7103]	3 ⁵ . 5. 11. 2699]	
XII { 3 ⁵ . 7 ⁵ . 11. 13. 41. 461]	XIII { 3 ⁵ . 5. 13. 19. 29. 569]	
3 ⁵ . 7 ⁵ . 11. 13. 19403]	3 ⁵ . 5. 13. 19. 17099]	
XIV { 3 ⁵ . 7 ⁵ . 13. 97. 5. 193]	XV { 3 ⁵ . 7. 13. 41. 163. 5. 977]	
3 ⁵ . 7 ⁵ . 13. 97. 1163]	3 ⁵ . 7. 13. 41. 163. 5867]	
XVI { 2 ⁵ . 17. 79]	XVII { 2 ⁵ . 23. 1367]	
2 ⁵ . 23. 59]	2 ⁵ . 53. 607]	
XVIII { 2 ⁵ . 47. 89]	XIX { 2 ⁵ . 23. 479]	
2 ⁵ . 53. 79]	2 ⁵ . 89. 127]	

XX	{ 2°. 23. 467 2°. 103. 107 }	XXI	{ 2°. 17. 5119 2°. 239. 383 }	XL
XXII	{ 2°. 17. 10303 2°. 167. 1103 }	XXIII	{ 2°. 19. 1439 2°. 149. 191 }	
XXIV	{ 2°. 59. 1103 2°. 79. 827 }	XXV	{ 2°. 37. 12671 2°. 227. 2111 }	
XXVI	{ 2°. 53. 10559 2°. 79. 7127 }	XXVII	{ 2°. 79. 11087 2°. 383. 2309 }	
XXVIII	{ 2°. 383. 9203 2°. 1151. 3067 }	XXIX	{ 2°. 11. 17. 263 2°. 11. 43. 107 }	L
XXX	{ 3°. 5. 7. 71 3°. 5. 17. 31 }	XXXI	{ 3°. 5. 13. 29. 79 3°. 5. 13. 11. 199 }	LV
XXXII	{ 3°. 5. 13. 19. 47 3°. 5. 13. 29. 31 }	XXXIII	{ 3°. 5. 13. 19. 37. 1583 3°. 5. 13. 19. 227. 263 }	H verfa
XXXIV	{ 3°. 7. 13. 19. 11. 220499 3°. 7. 13. 19. 89. 29399 }	XXXV	{ 3°. 5. 19. 37. 47 3°. 5. 19. 7. 227 }	I
XXXVI	{ 2°. 67. 37. 2411 2°. 67. 227. 401 }	XXXVII	{ 3°. 5. 7. 11. 29 3°. 5. 31. 89 }	
XXXVIII	{ 2. 5. 23. 29. 673 2. 5. 7. 60659 }	XXXIX	{ 2. 5. 7. 19. 177 2. 5. 47. 359 }	
XL	{ 2°. 11. 163. 191 2°. 31. 11807 }	XLI	{ 3°. 7. 13. 23. 11. 19. 367 3°. 7. 13. 23. 79. 1103 }	
XLII	{ 3°. 5. 23. 11. 19. 367 3°. 5. 23. 79. 1103 }	XLIII	{ 2°. 11. 59. 173 2°. 57. 2609 }	
XLIV	{ 2°. 11. 23. 2543 2°. 383. 1907 }	XLV	{ 2°. 11. 23. 1871 2°. 467. 1151 }	
XLVI	{ 2°. 11. 23. 1619 2. 719. 647 }	XLVII	{ 2°. 11. 29. 239 2°. 191. 449 }	
		XLVIII		

$$\text{XLVIII} \left\{ \begin{array}{l} 2^{\circ}.29.47.59 \\ 2^{\circ}.17.4799 \end{array} \right\}$$

$$\text{L} \left\{ \begin{array}{l} 2^{\circ}.23.47.9767 \\ 2^{\circ}.1583.7103 \end{array} \right\}$$

$$\text{LII} \left\{ \begin{array}{l} 3^{\circ}.7.13.5.17.1187 \\ 3^{\circ}.7.13.131.971 \end{array} \right\}$$

$$\text{LIV} \left\{ \begin{array}{l} 3^{\circ}.5^{\circ}.11.59.179 \\ 3^{\circ}.5^{\circ}.17.19.359 \end{array} \right\}$$

$$\text{LVI} \left\{ \begin{array}{l} 3^{\circ}.7.11^{\circ}.19.47.7019 \\ 3^{\circ}.7.11^{\circ}.19.389.863 \end{array} \right\}$$

$$\text{LVIII} \left\{ \begin{array}{l} 3^{\circ}.7^{\circ}.13.19.47.7019 \\ 3^{\circ}.7^{\circ}.13.19.389.863 \end{array} \right\}$$

$$\text{XLIX} \left\{ \begin{array}{l} 2^{\circ}.17.167.13679 \\ 2^{\circ}.809.51071 \end{array} \right\}$$

$$\text{LI} \left\{ \begin{array}{l} 2^{\circ}.5.13.1187 \\ 2^{\circ}.43.2267 \end{array} \right\}$$

$$\text{LIII} \left\{ \begin{array}{l} 3^{\circ}.7^{\circ}.13.53.11.211 \\ 3^{\circ}.7^{\circ}.13.53.2543 \end{array} \right\}$$

$$\text{LV} \left\{ \begin{array}{l} 3^{\circ}.5.17.23.397 \\ 3^{\circ}.5.7.21491 \end{array} \right\}$$

$$\text{LVII} \left\{ \begin{array}{l} 3^{\circ}.7.11^{\circ}.19.53.6959 \\ 3^{\circ}.7.11^{\circ}.19.179.2087 \end{array} \right\}$$

$$\text{LIX} \left\{ \begin{array}{l} 3^{\circ}.7^{\circ}.13.19.53.6959 \\ 3^{\circ}.7^{\circ}.13.19.179.2087 \end{array} \right\}$$

His adjicere lubet duo paria sequentia, quæ sunt formæ diverfæ a præcedentibus:

$$\text{LX} \left\{ \begin{array}{l} 2^{\circ}.19.41 \\ 2^{\circ}.199 \end{array} \right\}$$

$$\text{LXI} \left\{ \begin{array}{l} 2^{\circ}.41.467 \\ 2^{\circ}.19.233 \end{array} \right\}$$