

Annexe

Number Substitution Cypher

A	B	C	D	E	F	G	H	I	J
1	2	3	4	5	6	7	8	9	10

K	L	M	N	O	P	Q	R	S	T
11	12	13	14	15	16	17	18	19	20

U	V	W	X	Y	Z
21	22	23	24	25	26

Algorithme d'Euclide étendu

$$ax + by = \text{pgcd}(a, b)$$

	a	b	
	1	0	
	0	1	
$r_1 = a - bq_1$	$1 - 0q_1$	$0 - 1q_1$	q_1
...	...	...	...
r_{i-1}	s_i	t_i	q_i
r_i	u_i	v_i	q_{i+1}
$r_{i+1} = r_{i-1} - r_i q_{i+1}$	$s_i - u_i q_{i+1}$	$t_i - v_i q_{i+1}$	q_{i+2}
...	...	...	...
$r_{n-1} = \text{pgcd}(a, b)$	$s_n = x$	$t_n = y$	q_n
$r_n = 0$	u_n	v_n	

Reste de $\frac{a}{b}$

Quotient de $\frac{a}{b}$

2	13	239	1 237	2 347	12 347	123 457	1 234 789
3	17	257	1 249	2 357	12 379	123 479	1 235 789
5	19	269	1 259	2 389	12 457	124 567	1 245 689
7	23	347	1 279	2 459	12 479	124 679	1 456 789
	29	349	1 289	2 467	12 569	125 789	12 356 789
	37	359	1 367	2 579	12 589	134 789	23 456 789
	47	367	1459	2 689	12 689	145 679	
	59	379	1 489	2 789	13 457	234 589	
	67	389	1 567	3 457	13 469	235 679	
	79	457	1 579	3 467	13 567	235 789	
	89	467	1 789	3 469	13 679	245 789	
	127	479		4 567	13 789	345 679	
	137	569		4 679	15 679	345 689	
	139			4 789	23 459		
	149			5 689	23 567		
	157				23 689		
	167				23 789		
	179				25 679		
					34 589		
					34 679		

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