23). ⓐ a : 228 , m : 119.

$\frac{228}{119} = 119\overline{)228}$ (1) → div

119

109. → mod.

maka div = 1

mod = 109. //

ⓑ a : 9009, m : 223

$\frac{9009}{223} = 223\overline{)9009}$ (40) → div

8920

89 → mod

maka div = 40

mod = 89 //

ⓒ a : -10101, m : 333

$\frac{-10101}{333} = -30$

sisa : -111

maka div = -30

mod = -111 //

ⓓ a : -765432, m : 38271

$\frac{-765432}{38271} = -20$

sisa : -12

maka div = -20

mod = -12 //

30). ⓐ. (177 mod 31 + 270 mod 31) mod 31

177 : 31 = 5	270 : 31 = 8
sisa = 22	sisa = 22

* maka 177 mod 31 = 22
* maka 270 mod 31 = 22 +
  44

maka 44 mod 31 = 13 //

44 : 31 = 1
sisa = 13 //

ⓑ. (177 mod 31 . 270 mod 31) mod 31

177 : 31 = 5	270 : 31 = 8
sisa = 22	sisa = 22

* maka 177 mod 31 = 22
* maka 270 mod 31 = 22

22 x 22 = 484

484 mod 31 = 19 //

484 : 31 = 15
sisa = 19
//

Evaluasi.

33) ⓒ gcd (12, 18)

$12 = 2^2 \times 3$ atau $12 = 1, 2, 3, 4, \underline{6}$

$18 = 2 \times 3^2$ $18 = 1, 2, 3, \underline{6}, 9,$

maka gcd = $2 \times 3 = 6$ //

ⓕ gcd (123, 277)

$123 = 3 \times 41, 1 \times 123$ atau $123 = \underline{1}, \underline{3}, \underline{41}, \underline{123}$

$277 = 1 \times 277$ $277 = \underline{1}, \underline{277}$

maka gcd = (123, 18) = 1 //

ⓔ gcd (1000, 5040).

$1000 = 2^3 \times 5^3$ atau

$5040 = 2^4 \times 3^2 \times 5 \times 7$

1000 = 1, 2, 4, 5, 8, 40

5040 = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 40

kita mengambil angka pangkat yg paling kecil namun dengan angka terbesar yg sama

maka gcd = (1000, 5040) = $2^3 \times 5^1 = 40$ //

ⓑ gcd (111, 201)

$111 = 111 : 3 = 37 : 1$ atau $111 = \underline{1}, \underline{3}, \underline{37}, \underline{111}$

$201 = 201 : 3 = 67 : 1$ $201 = \underline{1}, \underline{3}, \underline{67}, \underline{201}$

maka gcd = (111, 201) = 3 //

ⓓ gcd (1529, 14039)

1529 :

14039 :

ⓐ gcd (12345, 54321).

$12345 = 3 \times 5 \times 823$ atau $12345 = \underline{1}, \underline{3}, \underline{5}, \underline{15}, \underline{823}, \underline{2469}, \underline{4115}, \underline{12345}$

$54321 = 3 \times 19 \times 953$. $54321 = \underline{1}, \underline{3}, \underline{17}, \underline{51}, \underline{953}, \underline{2859}, \underline{16201}, \underline{54321}$

maka gcd (12345, 54321) = 3 //

ⓕ gcd (9888, 6060)

$9888 = 2^5 \times 3 \times 103$ atau $9888 = 1, 2, 3, 4, 6, 8, \underline{12}$

$6060 = 2^2 \times 3 \times 5 \times 101$ $6060 = 1, 2, 3, 4, 5, 6, 10, \underline{12}$

maka gcd (9888, 6060) = $2^2 \times 3 = 12$ //