a = 412 , b = 260

ALGORITMO 1

P1 a = 412 , b = 260
P2 r = 412 % 260 = 152
P3 r != 0
P1 a = 260 ,b = 152
P2 r = 260 % 152 = 108
P3 r != 0
P1 a = 152 , b = 108
P2 r = 152 % 108 = 44
P3 r != 0
P1 a = 108 ,b = 44
P2 r = 108 % 44 = 20
P3 r != 0
P1 a = 44 , b = 20
P2 r = 44 % 20 = 4
P3 r != 0
P1 a = 20 , b = 4
P2 r = 20 % 4 = 0
P3 r = 0 -> RETURN b = 4

a = 412 , b = 260

ALGORITMO 2

P1 a = 412 , b = 260
P2 r = 412 % 260 = 152
P3 r != 0
P4 if (152 > 260/2) -> r = 260 - 152 = 108
P5 a = 260 , b = 108
P6 r = 260 % 108 = 44
P7 r != 0
P8 if (44 > 108/2) falso
P9 a = 108 , b = 44
P10 r = 108 % 44 = 20
P11 r != 0
P12 if (20 >44/2) falso
P13 a = 44 , b = 20
P14 r = 44 % 20 = 4
P15 r != 0
P16 if (4 >20/2) falso
P17 a = 20 , b = 4
P18 r = 20 % 4 = 0
P19 r = 0 -> RETURN b = 4

a = 412 , b = 260

ALGORITMO 3

P1 if (b = 0) false
P2 euclides(260, 412 % 260) -> euclides(260,152)
P3 if (b = 0) false
P4 euclides(152, 260 % 152) -> euclides(152,108)
P5 if (b = 0) false
P6 euclides(152, 152 % 108) -> euclides(108,44)
P7 if (b = 0) false
P8 euclides(108, 108 % 44) -> euclides(44,20)
P9 if (b = 0) false
P10 euclides(44, 44 % 20) -> euclides(20,4)
P11 if (b = 0) false
P12 euclides(4, 20 % 4) -> euclides(4,0)
P13 if (b = 0) -> RETURN a = 4

a = 412 , b = 260

ALGORITMO 4

P1 if(|260| > |412|) **false**
P2 if (b = 0) **false**
P3 if (412 es par y 260 es par) **true**
RETURN 2 * (a = 412 /2 , b = 260/ 2)

P1 if(|206 | > | 130|) **true**
RETURN (206 , 130)

P1 if(|130| > |206|) **false**
P2 if (b = 0) **false**
P3 if (206 es par y 130 es par) **true**
RETURN 2 * (a = 206 /2 , b = 130/ 2)

P1 if(|65 | > | 103|) **true**
RETURN (65 , 103)

RETURN (103 - 65 /2 , 65) = (16 , 65)

P1 if(|65 | > | 16|) **true**
RETURN (65 , 16)

P4 if(16 es par 65 es impar) **true**
RETURN (16/2 , 65)

a = 412 , b = 260

ALGORITMO 5

P1 g = 1

P2 a y b son pares -> a = 412 / 2 , b = 260 / 2 , g = 2*1
-> a = 206 , b = 130 , g = 2

P3 (a != 0) -> (mientras a sea par) -> a = 206 / 2 = 103
-> (mientras b sea par) -> b = 130 / 2 = 75
-> t = (103 - 75) / 2 -> t = 14
-> 103 >= 75 -> a = 14

P3 (a != 0) -> (mientras a sea par) -> a = 14 / 2 = 7
-> (mientras b sea par) falso
-> t = (75 - 7) / 2 -> t = 34
-> 7 <= 75 -> b = 34

P3 (a != 0) -> (mientras a sea par) falso
-> (mientras b sea par) -> b = 34/2 = 17
-> t = (34 - 17) / 2 -> t = 8
-> 7 <= 75 -> b = 34

a = 412 , b = 260

ALGORITMO 6

P1 while(412 != 260) **true**
if(412 > 260) **true**
a = 412 - 260 = 152
else **false**

P1 while(152 != 260) **true**
if(412 > 260) **false**
else **true**
b = 260 -152 = 108

P1 while(152 != 108) **true**
if(152 > 108) **true**
a = 152 - 108 = 44
else **false**

P1 while(44 != 108) **true**
if(44 > 108) **false**
else **false**
b = 108 - 44 = 64

P1 while(44 != 64) **true**
if(412 > 260) **false**
else **true**
b = 64 -24 = 20

P1 while(44 != 20) **true**
if(44 > 20) **true**
a = 44 - 20 = 24
else **false**

P1 while(24 != 20) **true**
if(24 > 20) **true**
a = 24 - 20 = 4
else **false**

P1 while(4 != 20) **true**
if(4 > 20) **false**
else **true**
b = 20 - 4 = 16

P1 while(4 != 16) **true**
if(4 > 16) **false**
else **true**
b = 16 - 4 = 8

P1 while(4 != 8) **true**

if(4 > 8) **false**

else **true**

b = 8 - 4 = 4

P1 while(4 != 4) **false**

P12 RETURN a = 4