

Stack status of doing gcd(14,21)

gcd(int a, int b)

20 levels of stack for
gcd(14, 21)

b 21
a 14 $14 \% 21 = 14$

return address

ebp

ebx

No memory space allocated for local variable

push non-volatile variable onto the stack

b¹
a¹

a % b

14

$21 \% 14 = 7$

b

21

return address

ebp

ebx

b²

a²

7
14

$14 \% 7 = 0$

return address

ebp

ebx

b³

a³

0

7

return address

ebp

ebx.