1.The greatest common divisor between 2 numbers is the largest number that will evenly divide both of them. Show how the operating system stack changes when the recursive function gcd executes. The first call is done for you.

a= 287 b= 91 x= 14 z =

#include <iostream.h>



int gcd(int, int);

void main( )

{

int y;

y = gcd (287, 91);

cout <<”The gcd is “ << y;

}

int gcd(int a, int b)

{

int x, z;

if (b == 0) return a;

x = a% b;

z = gcd(b, x);

return z;

}

public int mystery(int k) {

if (k == 1) return 0;

else return( 1 + mystery(k/2));

}

2. What value is returned by the call mystery (16) ?

A. 0

B. 2

C. 4

D. 5

E. 16