

Java Week 5: Q2

Due on 2020-10-22, 23:59 IST

This program is to find the GCD (greatest common divisor) of two integers writing a recursive function `findGCD(n1, n2)`. Your function should return -1, if the argument(s) is(are) other than positive number(s).

Private Test cases used for evaluation

Test Case 1

Test Case 2

Input	Expected Output	Actual Output	Status
2 0	2	2	Passed
-1 -1	-1	-1	Passed

The due date for submitting this assignment has passed.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2020-10-21, 14:45 IST

Your last recorded submission was :

```

1 import java.util.Scanner;
2
3 interface GCD {
4     public int findGCD(int n1,int n2);
5 }
6 //Create a class B, which implements the interface GCD.
7 class B implements GCD
8 {
9     public int findGCD(int n1,int n2)
10    {
11        if(n1 < 0 || n2 < 0)
12            return -1;
13        else if( n2 != 0 )
14            return findGCD(n2,n1%n2);
15        else
16            return n1;
17    }
18 }
19
20 public class Question5_2{
21     public static void main (String[] args){
22         B a = new B(); //Create an object of class B
23         // Read two numbers from the keyboard
24         Scanner sc = new Scanner(System.in);
25         int p1 = sc.nextInt();
26         int p2 = sc.nextInt();
27         System.out.print(a.findGCD(p1,p2));
28     }
29 }

```

Sample solutions (Provided by instructor)

```

1 import java.util.Scanner;
2
3 interface GCD {
4     public int findGCD(int n1,int n2);
5 }
6 class B implements GCD {
7     int n1,n2;
8
9     //Create a method to calculate GCD
10    public int findGCD(int n1, int n2){
11        if(n1==0&& n2==0){
12            return -1;
13        }
14        else if(n2 == 0){
15            return n1;
16        }
17        else {
18            return findGCD(n2, n1%n2);
19        }
20    }
21 }
22
23 public class Question5_2{
24     public static void main (String[] args){
25         B a = new B(); //Create an object of class B
26         // Read two numbers from the keyboard
27         Scanner sc = new Scanner(System.in);
28         int p1 = sc.nextInt();
29         int p2 = sc.nextInt();
30         System.out.print(a.findGCD(p1,p2));
31     }
32 }

```

Course outline

How does an NPTEL online course work?

Week 0 : Assignment 0

Week 1 :

Week 2 :

Week 3 :

Week 4 :

Week 5 :

- Lecture 21 : Interface-II
- Lecture 22 : Demonstration-IX
- Lecture 23 : Exception Handling-I
- Lecture 24 : Exception Handling-II
- Lecture 25 : Exception Handling-III
- Quiz: Assignment 5
- Java Week 5:Q1
- Java Week 5: Q2
- Java Week 5: Q3
- Java Week 5: Q4
- Java Week 5: Q5
- Feedback For Week 5

Week 6 :

Week 7 :

Week 8 :

Week 9 :

Week 10 :

Week 11 :

Week 12 :

Solution

DOWNLOAD VIDEOS

Text Transcripts

Programming Test - (April 11 - 10AM - 12 PM)

Programming Test - (April 11 - 8PM - 10 PM)