

Java Week 3: Q2

Due on 2020-10-08, 23:59 IST

Define a class Point with two fields x and y each of type double. Also, define a method distance(Point p1, Point p2) to calculate the distance between points p1 and p2 and return the value in double. Complete the code segment given below. Use Math.sqrt() to calculate the square root.

Private Test cases used for evaluation

Test Case 1

Input

```
1.0 1.0
1.0 1.0
```

Expected Output

0.0

Actual Output

0.0

Status

Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2020-10-08, 22:44 IST

Your last recorded submission was :

```
1 import java.util.Scanner;
2
3 public class Circle extends Point{
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         Point c=new Point(); //Create a point center
7         c.x=sc.nextDouble();
8         c.y=sc.nextDouble();
9         Point p=new Point(); //Create a point on circumference
10        p.x=sc.nextDouble();
11        p.y=sc.nextDouble();
12        Circle c1=new Circle(); //Create an object of class Circle
13        c1.distance(c,p); //Calculate radius of the circle
14    }
15 }
16
17 //Complete the code segment to define a class Point with variable x,y and method distance() that calculates the distance between
18 //Note: Pass objects of type class Point as argument in distance() method.
19
20 class Point
21 {
22     public double x, y;
23     double distance(Point p1, Point p2)
24     {
25         double x1 = p1.x;
26         double y1 = p1.y;
27         double x2 = p2.x;
28         double y2 = p2.y;
29         double distance;
30         distance = Math.sqrt((x1 - x2)*(x1 - x2) + (y1 - y2)*(y1 - y2));
31         System.out.print(distance);
32         return distance;
33     }
34 }
35
36
37
```

Sample solutions (Provided by instructor)

```
1 import java.util.Scanner;
2
3 public class Circle extends Point{
4     public static void main(String[] args) {
5         Scanner sc = new Scanner(System.in);
6         Point c=new Point(); //Create a point center
7         c.x=sc.nextDouble();
8         c.y=sc.nextDouble();
9         Point p=new Point(); //Create a point on circumference
10        p.x=sc.nextDouble();
11        p.y=sc.nextDouble();
12        Circle c1=new Circle(); //Create an object of class Circle
13        c1.distance(c,p); //Calculate radius of the circle
14    }
15 }
16
17 class Point{
18     double x;
19     double y;
20
21     public static void distance(Point p1,Point p2){
22         double d;
23         d=Math.sqrt((p2.x-p1.x)*(p2.x-p1.x) + (p2.y-p1.y)*(p2.y-p1.y));
24         System.out.println(d);
25     }
26 }
27
28
29
```

Course outline

How does an NPTEL online course work?

Week 0 : Assignment 0

Week 1 :

Week 2 :

Week 3 :

- Lecture 11 : Java Static Scope Rule
- Lecture 12 : Demonstration-V
- Lecture 13 : Inheritance
- Lecture 14 : Demonstration-VI
- Lecture 15 : Information Hiding
- Quiz: Assignment 3
- Java Week 3: Q1
- Java Week 3: Q2
- Java Week 3: Q3
- Java Week 3: Q4
- Java Week 3: Q5
- Feedback For Week 3

Week 4 :

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)