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	Input	Expected Output	Actual Output	Status
Test Case 1	1.0 1.0 1.0 1.0	0.0	0.0	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
5       public static void main(String[] args) {
6
7       Scanner sc = new Scanner(System.in);
8       Point c=new Point(); //Create a point center
9       c.x=sc.nextDouble();
10      c.y=sc.nextDouble();
11      Point p=new Point();  //Create a point on circumference
12      p.x=sc.nextDouble();
13      p.y=sc.nextDouble();
14      Circle c1=new Circle(); //Create an object of class Circle
15      c1.distance(c,p);  //Calcualte radius of the circle
16
17    }
18
19  }
20
21  //Complete the code segment to define a class Point with variable x,y and method distance() that calculates the distance betwee
22  //Note: Pass objects of type class Point as argument in distance() method.
23  class Point
24  {
25    public double x, y;
26    double distance(Point p1, Point p2)
27    {
28      double x1 = p1.x;
29      double y1 = p1.y;
30      double x2 = p2.x;
31      double y2 = p2.y;
32      double distance;
33      distance = Math.sqrt((x1 - x2)*(x1 - x2) + (y1 - y2)*(y1 - y2));
34     System.out.print(distance);
35      return distance;
36    }
37  }
```

Sample solutions (Provided by instructor)

```
1  import java.util.Scanner;
2
3   public class Circle extends Point{
4
5       public static void main(String[] args) {
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7       Scanner sc = new Scanner(System.in);
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12      p.x=sc.nextDouble();
13      p.y=sc.nextDouble();
14      Circle c1=new Circle(); //Create an object of class Circle
15      c1.distance(c,p);  //Calcualte radius of the circle
16
17    }
18
19  }
20
21  class Point{
22    double x;
23    double y;
24
25    public static void distance(Point p1,Point p2){
26          double d;
27        d=Math.sqrt((p2.x-p1.x)*(p2.x-p1.x) + (p2.y-p1.y)*(p2.y-p1.y));
28        System.out.println(d);
29    }
30  }
```