POINT CLASS

```java
public class Point{

 int x,y;

 public String toString()

 {

  return "(x,y) is"+x+","+y;

 }

 public Point()

 {

  x=0;

  y=0;

 }

 public Point(int axis)

 {

  this.x=axis;

  this.y=axis;

 }

 public Point(int x,int y)

 {

  this.x=x;

  this.y=y;

 }

 public void setXY(int x,int y)

 {

  this.x=x;

  this.y=y;

 }
```

```java
public double distance(int axis)

{

 double distanceAnswer=((axis-x)*(axis-x)+(axis-y)*(axis-y));

 distanceAnswer=Math.sqrt(distanceAnswer);

 return distanceAnswer;

}

public double distance(int x1,int y1)

{

 double distanceAnswer=((x1-x)*(x1-x))+((y1-y)*(y1-y));

 distanceAnswer=Math.sqrt(distanceAnswer);

 return distanceAnswer;

}

public double distance()

{

 double distanceAnswer=((x*x)+(y*y));

 distanceAnswer=Math.sqrt(distanceAnswer);

 return distanceAnswer;

}

}
```

SOLUTION CLASS

```java
import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

public class Solution

{

public static void main(String a[])throws IOException

{
```

```java
BufferedReader bf=new BufferedReader(new InputStreamReader(System.in));

Point po=new Point();

System.out.println("ENTER THE VALUE FOR X AND Y");

int x=Integer.parseInt(bf.readLine());

int y=Integer.parseInt(bf.readLine());

System.out.println("ENTER THE CHOICE");

int choice=Integer.parseInt(bf.readLine());

switch(choice)

{

 case 1:po.setXY(x,y);

 System.out.println("DISTANCE:"+po.distance());

 break;

 case 2:po=new Point(x,y);

 System.out.println("ENTER THE VALUE FOR X1 AND Y1");

 int x1=Integer.parseInt(bf.readLine());

   int y1=Integer.parseInt(bf.readLine());

 System.out.println("DISTANCE:"+po.distance(x1,y1));

 break;

 case 3:po=new Point(x);

 System.out.println("ENTER THE VALUE FOR AXIS");

   int axis=Integer.parseInt(bf.readLine());


 System.out.println("DISTANCE:"+po.distance(axis));

 break;

 }

 System.out.println(po);

}
```

}