Primer 1 - paketi u programskom jeziku Java

Potrebno je implementirati na jeziku Java klase **Point** i **Line** date u nastavku dokumenta, kao i test klasu **TryPackage**.

```java
package Geometry;
class Point
{
        //Cemu sluze paketi?
        //Da li je bitno u kom folderu se nalazi klasa Point?

        // Coordinates of the point
        private double x;
        private double y;

        // Create a point from its coordinates
        public Point(double xVal, double yVal)
        {
                // TO DO
        }

        // Create a Point from an existing Point object
        public Point(final Point aPoint)
        {
                // TO DO
        }

        // Move a point
        public void move(double xDelta, double yDelta)
        {
                // TO DO
        }

        // Calculate the distance to another point
        public double distance(final Point aPoint)
        {
                // TO DO
        }

        // Convert a point to a string
        public String toString()// As "x, y"
        {
```

```java
                        // TO DO
        }




        // Retrieve the x coordinate  - ACCESSOR METHOD
        public double getX()
        {
                // TO DO
        }




        // Retrieve the y coordinate  - ACCESSOR METHOD
        public double getY()
        {
                // TO DO
        }

        // Set the x coordinate  - MUTATOR METHOD
        public void setX(double inputX)
        {
                // TO DO
        }

        // Set the y coordinate  - MUTATOR METHOD
        public void setY(double inputY)
        {
                // TO DO
        }
}
```

```java
package Geometry;

public class Line
{
        // Data members
        Point start;  // Start point of line
        Point end;        // End point of line
```

```java
        // Create a line from two points
        public Line(final Point start, final Point end)
        {
                // TO DO
        }
        // Create a line from two coordinate pairs
        public Line(double xStart, double yStart, double xEnd, double yEnd)
        {
                // TO DO
        }

        // Calculate the length of a line
        public double length()
        {
                // Use the method from the Point class
        }

        // Return a point as the intersection of two lines -- called from a Line object
        public Point intersects(final Line line1)
        {
                // TO DO
        }

        // Convert a line to a string
        public String toString()
        {
                        // As "(start):(end)"
        }// that is, "(x1, y1):(x2, y2)"

}
```

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```java
import Geometry.*;        // Import the Point and Line classes

public class TryPackage
{
        public static void main(String[] args)
        {
                double[][] coords = { {1.0, 0.0}, {6.0, 0.0}, {6.0, 10.0},
                {10.0,10.0}, {10.0, -14.0}, {8.0, -14.0}};

                // Create an array of points and fill it with Point objects

                // Create an array of lines and fill it using Point pairs
```

```
            // Output the total length
        }
    }
```