

PACKAGE

```
package Geometry;

public class Point {
    // Coordinates of the point
    private double x;
    private double y;

    // Create a point from its coordinates
    public Point(double xVal, double yVal)

    // Create a Point from an existing Point object
    public Point(final Point aPoint)

    // Move a point
    public void move(double xDelta, double yDelta)

    // Calculate the distance to another point
    public double distance(final Point aPoint)

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

    // Retrieve the x coordinate - ACCESSOR METHOD
    public double getX()
    // Retrieve the y coordinate - ACCESSOR METHOD
    public double getY()

    // Set the x coordinate - MUTATOR METHOD
    public void setX(double inputX)

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

}
```

```
package Geometry;
// Data members
Point start;           // Start point of line
Point end;             // End point of line

public class Line
{
    // Create a line from two points
    public Line(final Point start, final Point end)

    // Create a line from two coordinate pairs
    public Line(double xStart, double yStart, double xEnd, double yEnd) {
        // Create the start point
        // Create the end point  }

    // 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)  DOMACI

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

```
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
}
}
```