```
triangle tester {
      get user input (make sure its double)
      myTriangle = new triangle object with input
      print myTriangle.getCoordinates();
      print myTriangle.getSideLength1() then 2 then 3
      print myTriangle.getAngle1() then 2 then 3
      print perimeter
      print area
      print boolean of equilateral check
      print boolean of right-triangle check
      print incenter coordinates
      print centroid coordinates
}

triangle {
      3 Point2D objects for triangle corners
      constructor with 6 inputs, for 3 coordinates {

            }

      double getCoordinates() {
         return coordinates of triangle object
      }

      double getSideLength1() then 2 and 3 {
         returns the side length
      }

      double getAngle1() then 2 and 3 {
            returns the angle
      }

      double getPerimter() returns perimeter

      double area() returns area

      boolean isEquilateral() {
            return true if angles are 60 degrees
      }
      boolean isRightTriangle() {
            return true if 90 degree angle is found
      }

      Point2D getIncenter() {
            calculate incenter with formula
            return coordinates
      }

      Point2D getCentroid() {
            calculate centroid with formula
            return coordinates
      }

}
```