

Welcome

J lab5.java 5 ●

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```
1 public interface Shape { float calculateArea();
2 float calculatePerimeter();
3 }
4
5
6 public class Circle implements Shape { float area,perimeter,rad;
7
8 public Circle(float i){ rad=i;
9 }
10 @Override
11 public float calculateArea(){
12 area = (float)(Math.PI*Math.pow(rad,2)); return area;
13 }
14 @Override
15 public float calculatePerimeter(){ perimeter = (float)(2*Math.PI*rad); return perimeter;
16 }
17
18 }
19
20
21 public class Rectangle implements Shape { float area,perimeter,b,l;
22 public Rectangle(float i,float j){ b=i;
23 l=j;
24 }
25 @Override
26 public float calculateArea() { area = b*l;
27 return area;
28 }
29
30 @Override
31 public float calculatePerimeter() { perimeter = 2*(b+l);
32 return perimeter;
33 }
34 }
35
36
37 public class Triangle implements Shape { float area,perimeter,b,l,h;
38 public Triangle(float i,float j, float k){ b=i;
39 l=j; h=k;
40 }
41 @Override
42 public float calculateArea() { area = (float) (h*b*0.5); return area;
43 }
44
45 @Override
46 public float calculatePerimeter() { perimeter = b+l+h;
47 return perimeter;
48 }
49 }
50
51
52 public class Main {
53 Run|Debug
54 public static void main(String[] args) { Circle circle = new Circle(1.5);
55 System.out.println("Circle area: " + circle.calculateArea()); System.out.println("Circle perimeter: " +
56 circle.calculatePerimeter());
57
58 Triangle triangle = new Triangle(1.5, 1.4, 1.3); System.out.println("Triangle area: " + triangle.calculateArea()); System.out.println("Triangle perimeter: " +
59 triangle.calculatePerimeter());
60
61 Rectangle rectangle = new Rectangle(1.7, 1.3); System.out.println("Rectangle area: " + rectangle.calculateArea()); System.out.println("Rectangle perimeter: " +
62 rectangle.calculatePerimeter());
63
64 }
65 }
```