```java
import java.util.Scanner;
abstract class Shape {
    double a, b;
    Shape (double p, double q) {
        this.a = p;
        this.b = q;
    }
    abstract void printArea();
}

class Rectangle extends Shape {
    Rectangle (double p, double q) {
        super(p, q);
    }
    void printArea() {
        System.out.format("Area of rectangle is: %f\n", this.a * this.b);
    }
}

class Triangle extends Shape {
    Triangle (double p, double q) {
        super(p, q);
    }
    void printArea() {
        System.out.format("Area of Triangle is %f\n", ((this.a * this.b)/2));
    }
}
```

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    }

class Circle extends Shape {
    Circle (double p, double q){
        super (p,q);
    }

    void printArea (){
        System.out. println ("Area of circle is %.f \n",
            3.14**this.a * this.b);
        }
    }

class ShapeMain {
    public static void main (String[] args){
        Scanner gd = new Scanner (System.in);
        System.out. println ("Enter the dims of
            rectangle (l,b): ");
        Rectangle r = new Rectangle (gd.nextDouble(),
            gd.nextDouble());
        System.out. println ("Enter the dims of
            triangle (h,b): ");
        Triangle t = new Triangle (gd.nextDouble(),
            gd.nextDouble());
        System.out. println ("Enter the dims of
            circle (r): ");
        double r = gd.nextDouble();
        Circle c = new Circle(r, &);
```

```
    r.printArea();
    t.printArea();
    c.printArea();
    }
}
```

```
pranavsastry@Pranavs-iMac:~/Documents/OOJ-Lab/Lab 4$ runj ShapeMain
Enter the dimensions of the the rectangle(length breadth):
10 20
Enter the dimensions of the triangle(height base_length):
30 24
Enter the dimension of the circle(radius):
50
Area of Rectangle is: 200.000000
Area of Triangle is: 360.000000
Area of Circle is: 7850.000000
pranavsastry@Pranavs-iMac:~/Documents/OOJ-Lab/Lab 4$ 
```