

```

abstract class Shape {
    int dim1, dim2;

    Shape(int a, int b) {
        dim1 = a;
        dim2 = b;
    }

    // Abstract method
    abstract void printArea();
}

// Rectangle class
class Rectangle extends Shape {
    Rectangle(int a, int b) {
        super(a, b);
    }

    @Override
    void printArea() {
        int area = dim1 * dim2;
        System.out.println("Area of Rectangle = " + area);
    }
}

// Triangle class
class Triangle extends Shape {
    Triangle(int a, int b) {
        super(a, b);
    }

    @Override
    void printArea() {
        double area = 0.5 * dim1 * dim2;
        System.out.println("Area of Triangle = " + area);
    }
}

// Circle class
class Circle extends Shape {
    Circle(int r) {
        super(r, 0); // second value not needed
    }

    @Override
    void printArea() {
        double area = Math.PI * dim1 * dim1;
        System.out.println("Area of Circle = " + area);
    }
}

```

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}  
}
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// Main class
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```
public class ShapeAreaDemo {  
    public static void main(String[] args) {  
        Rectangle r = new Rectangle(10, 20);  
        r.printArea();  
  
        Triangle t = new Triangle(10, 15);  
        t.printArea();  
  
        Circle c = new Circle(7);  
        c.printArea();  
    }  
}
```