

Q) polygon interface with get Perimth() & get Area();

=>

```
- public interface Polygon {
```

```
    default double get Perimeter (double ... sides) {
```

```
        double perimeter = 0;
```

```
        for (double side : sides)
```

```
            perimeter += side;
```

```
        return perimeter;
```

```
    }
```

```
    double getArea();
```

```
}
```

```
- public class Rectangle implements Polygon {
```

```
    private double length;
```

```
    private double breadth;
```

```
    public Rectangle (double length, double breadth) {
```

```
        this.length = length;
```

```
        this.breadth = breadth;
```

```
    }
```

```
    @Override
```

```
    public double getArea() {
```

```
        return length * breadth;
```

```
    }
```

```
}
```

```
public class Triangle implements Polygon {
```

```
    private double base;
```

```
    private double height;
```

```
    public Triangle(double b, double h) {
```

```
        base = b;
```

```
        height = h;
```

```
    }
```

@ Override

```
    public double getArea() {
```

```
        return base * height * 0.5;
```

```
    }
```

```
}
```

```
public class Main {
```

```
    public static void main (String[] args) {
```

```
        Rectangle r1 = new Rectangle (5,3);
```

```
        Triangle T1 = new Triangle (4,6);
```

```
        System.out.println("Rectangle Perimeter: " + r1.getPerimeter (5,3,5,3));
```

```
        System.out.println("Triangle Perimeter: " + T1.getPerimeter (4,5,3));
```

```
        System.out.println("area of rectangle: " + r1.getArea());
```

```
        System.out.println("area of triangle: " + T1.getArea());
```

```
    }
```

```
}
```

O/p=

Rectangle perimeter : 16

Triangle perimeter : 12

Rectangle Area : 15

Triangle area : 12

26-11