

```
import java.util.Scanner;
```

```
class InputScanner{
```

```
    void rec(Rectangle ab){
```

```
        System.out.println("Enter the dimensions  
of the rectangle (length  
and breadth):");
```

```
        ab.a = input.nextInt();  
        ab.b = input.nextInt();
```

```
    }
```

```
    void tri(Triangle ab){
```

```
        Scanner input = new Scanner(System.in);  
        ab.a = input.nextInt();  
        ab.b = input.nextInt();
```

```
    }
```

```
}
```

```
abstract class Shape extends InputScanner{  
    int a, b;  
    abstract void printArea();
```

```
}
```

```

class rectangle extends shape {
    rectangle() {
        rec(this);
    }
    void printArea() {
        System.out.println("Area of Rectangle"
            + "(double) (a*b)");
    }
}

```

```

class triangle extends shape {
    triangle() {
        tri(this);
    }
    void printArea() {
        System.out.println("Area of Triangle = " + (0.5 * a * b));
    }
}

```

```

class circle extends shape {
    circle() {
        cir(this);
    }
    void printArea() {
        System.out.println("Area of Circle = " + (3.14 * a * a));
    }
}

```

```

}

```

```

class calc {
    public static void main(String[] args) {
        rectangle r = new rectangle();
        triangle t = new triangle();
        circle c = new circle();

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

```

Output:

Enter dimensions of rectangle (Length and <sup>breadth</sup>~~height~~):  
45

Enter dimensions of <sup>triangle</sup>~~circle~~ (base and height):  
89

Enter radius of circle:  
6

---

Area of Rectangle = 20.0  
Area of Triangle = 36.0  
Area of Circle = 113.039

S  
2/01/24