

Week 8:- Shape.java.

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

class Rectangle extends Shape
{
    public Rectangle (int a, int b) {
        super (a, b);
    }
    void printArea ()
    {
        System.out.println ("Area of rectangle: " + (a * b));
    }
}

class Triangle extends Shape
{
    public Triangle (int a, int b) {
        super (a, b);
    }
    void printArea () {
        System.out.println ("Area of triangle: " + (a * b));
    }
}

class Circle extends Shape
```



```

{
    public Circle (int a, int b) {
        super (a, b);
    }
    void printArea () {
        System.out.println ("Area of Circle : " + (3.142 * a * b));
    }
}

```

```

class Prog 5 {
    public static void main (String [] args) {
        Scanner sc = new Scanner (System.in);
        System.out.println ("Enter length of rectangle : ");
        int l_rec = sc.nextInt();
        System.out.println ("Enter breadth of rectangle : ");
        int b_rec = sc.nextInt();
        System.out.println ("Enter height of triangle : ");
        int h_tri = sc.nextInt();
        System.out.println ("Enter base of triangle : ");
        int b_tri = sc.nextInt();
        System.out.println ("Enter radius of circle : ");
        int r_cir = sc.nextInt();
    }
}

```

```

    Rectangle r = new Rectangle (l_rec, b_rec);
    Triangle t = new Triangle (l_tri, b_tri);
    Circle c = new Circle (r_cir, r_cir);
    System.out.println ("-----");
    r.printArea();
    t.printArea();
    c.printArea();
}
}

```