

## LAB - 4

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

```
abstract class Shape {
```

```
    int b, h;
```

```
    Shape(int b, int h) {
```

```
        this.b = b;
```

```
        this.h = h;
```

```
    }
```

```
    void printArea() {};
```

```
}
```

```
class Rectangle extends Shape {
```

```
    Rectangle(int b, int h) {
```

```
        super(b, h);
```

```
}
```

```
    void printArea() {
```

```
        System.out.println("Area of the rectangle is
```

```
        " + (b * h));
```

```
    };
```

```
}
```

```
class Triangle extends Shape {
```

```
    Triangle(int b, int h) {
```

```
        super(b, h);
```

```
}
```

```

void printArea() {
    System.out.println("Area of the triangle is
        " + ((b*h)/2));
}

}

class Circle extends Shape {
    Circle(int r) {
        super(r, r);
    }

    void printArea() {
        System.out.println("Area of the circle is
            " + (Math.PI * h * h));
    }
}

public class Prog1 {
    public static void main(String[] args) {
        Rectangle rect = new Rectangle(10, 5);
        Triangle tri = new Triangle(10, 5);
        Circle c = new Circle(10);
        rect.printArea();
        tri.printArea();
        c.printArea();
    }
}

```