```java
import java.util.Scanner;

abstract class Shape {
    int di1;
    int di2;


    public Shape() {
        this.di1 = 0;
        this.di2 = 0;

    }

    public Shape(int di1, int di2) {
        this.di1 = di1;
        this.di2 = di2;
    }

    public abstract void printArea();

}

class Rectangle extends Shape {
    public Rectangle(int l, int w) {

        di1 = l;
        di2 = w;
    }

    public void printArea() {

        int area = di1 * di2;
        System.out.println("Area of Rectangle: " + area);

    }
}

class Triangle extends Shape {
    public Triangle(int b, int h) {

        di1 = b;
        di2 = h;
    }

    public void printArea() {

        double area = 0.5 * di1 * di2;
        System.out.println("Area of Triangle: " + area);

    }
}
```

```
}

class Circle extends Shape {
    public Circle(int r) {

        di1 = r;
        di2 = 0;
    }

    public void printArea() {

        double area = Math.PI * di1 * di1;
        System.out.println("Area of Circle: " + area);
    }
}

public class week4 {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter length and width for Rectangle:");

        int l = scanner.nextInt();
        int w = scanner.nextInt();
        Shape rectangle = new Rectangle(l, w);
        rectangle.printArea();

        System.out.println("Enter base and height for Triangle:");

        int b = scanner.nextInt();
        int h = scanner.nextInt();
        Shape triangle = new Triangle(b, h);
        triangle.printArea();

        System.out.println("Enter radius for Circle:");

        int r = scanner.nextInt();
        Shape circle = new Circle(r);
        circle.printArea();

        scanner.close();
    }
}
```

```
C:\Users\Admin\Desktop>javac week4.java

C:\Users\Admin\Desktop>java week4
Enter length and width for Rectangle:
12
10
Area of Rectangle: 120
Enter base and height for Triangle:
6
4
Area of Triangle: 12.0
Enter radius for Circle:
7
Area of Circle: 153.93804002589985
```