

Week 8 Program → Area of Shapes.

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

```
abstract class shape {  
    int l;  
    int b;  
    abstract void printArea();  
}
```

```
class rec extends shape {  
    Scanner inp = new Scanner(System.in);  
    System.out.print("Length & Breadth : ");  
    l = inp.nextInt();  
    b = inp.nextInt();  
    {  
        double area;  
        void printArea() {  
            area = (double) l * b;  
            System.out.println("Area of rect " + area);  
        }  
    }  
}
```

```
class tri extends shape {  
    Scanner inp = new Scanner(System.in);  
    Tri() {  
        System.out.print("Height & Base : ");  
        l = inp.nextInt();  
        b = inp.nextInt();  
    }  
}
```

```
double area;  
void printArea() {  
    area = (double)(0.5 * l * b);  
    System.out.println("Triangle Area: " + area);  
}  
}
```

```
class cir extends Shape {  
    Scanner inp = new Scanner(System.in);  
    double area;  
    cir() {  
        System.out.print("Radius : ");  
        l = inp.nextInt();  
    }  
    void printArea() {  
        area = (double) 3.14 * l * b;  
        System.out.print("Area of circle " + area);  
    }  
}
```

```
class areaOfShapes {  
    public static void main(String[] args)  
    {  
        Scanner inp = new Scanner(System.in);  
        int opt;  
        System.out.println("1. Rect\n2. Tri\n3. Circle\n");  
        opt = inp.nextInt();  
    }
```

```
while(opt != 4) {  
    switch (opt) {  
        case 1: rec r = new rec();  
                r.printarea();  
                break;  
        case 2: tri t = new tri();  
                t.printarea();  
                break;  
        case 3: cir c = new cir();  
                c.printArea();  
                break;  
    }  
    System.out.println("Enter choice");  
    opt = inp.nextInt();  
}  
}
```