

Lab - 4

Haashil Doshi  
IBMI9CS057

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

```
abstract class shape
```

```
{ private int a, b;
```

```
void setshape (int x, int y)
```

```
{  
    a = x;  
    b = y;
```

```
}  
int geta()
```

```
{  
    return a;
```

```
}  
int getb()
```

```
{  
    return b;
```

```
}
```

```
abstract public void print_area();
```

```
{  
class rectangle extends shape
```

```
{ private int area_rect;
```

```
rectangle (int x, int y)
```

```
{  
    setshape(x, y);
```

```
}
```

```
public void print_area()
```

```
{  
    area_rect = geta() * getb();
```

```
    System.out.println("Area of rectangle is: " +  
                        area_rect);
```

```
}  
}
```

```
class triangle extends shape
```

```
{ private double area_tri;
```

```
triangle (int x, int y)
```

```
{  
    setshape(x, y);
```

```
}
```

```

public void print-area()
{
    area-tri = (geta() * getbc()) / 2;
    System.out.println("The area of  $\Delta^k$  is: " + area-tri);
}
}

class circle extends shape
{
    private double area-circle;
    circle(int y)
    {
        setshape(0, y);
    }
    public void print-area()
    {
        area-circle = (3.14) * getbc() * getbc();
        System.out.println("Area of circle is: " + area-circle);
    }
}

```

```

public class week 81
{
    public static void main (String[] args)
    {
        Scanner xx = new Scanner (System.in);

        int a, b;
        System.out.println("Enter the length of rectangle:");
        a = xx.nextInt();
        System.out.println("Enter the breadth of rectangle:");
        b = xx.nextInt();
        rectangle r = new rectangle(a, b);
        r = print-area()
        System.out.println("Enter the height length of  $\Delta^k$ :");
        a = xx.nextInt();
        System.out.println("Enter the base of  $\Delta^k$ :");
        b = xx.nextInt();
    }
}

```

```
triangle t = new triangle (a,b);  
t = print-area();  
System.out.println("Enter the radius of the circle:");  
a = nextInt() a = xx.nextInt();  
circle c = new circle(a);  
c.print-area();  
}  
}
```