

2) CREATING A CLASS SHAPE USING INTERFACE.

PROGRAM:

```
import java.util.Scanner;
interface shape
{
    double getarea();
}
class circle implements shape
{
    double radius, pi=3.14; public circle()
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the radius of circle");
        radius=sc.nextDouble();
    }
    @Override
    public double getarea()
    {
        return pi*radius*radius;
    }
}
class triangle implements shape
{
    double base,height;
    public triangle()
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter base of triangle");
        base=sc.nextDouble();
        System.out.println("enter height of triangle");
        height=sc.nextDouble();
    }
    @Override public double getarea()
    {
        return 1/2*base*height;
    }
}
class rectangle implements shape
{
    double width,length;
    public rectangle()
    {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter rectangle length");
        length=sc.nextDouble();
        System.out.println("enter rectangle width");
    }
}
```

```

width=sc.nextDouble();
}
@Override
public double getarea()
{
return length*width;
}
}
public class test
{ public static void main(String args[])
{
circle c=new circle();
triangle t=new triangle();
rectangle r=new rectangle();
System.out.println("Area of circle is "+c.getarea());
System.out.println("Area of triangle is :"+c.getarea());
System.out.println("Area of rectangle is "+r.getarea());
}
}
}

```

OUTPUT:

```

Enter the radius of circle
5
Enter base of triangle
4
enter height of triangle
6
Enter rectangle length
6
enter rectangle width
8
Area of circle is 78.5
Area of triangle is :78.5
Area of rectangle is 48.0

```