

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();
}
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:

```
java -cp /tmp/LG9QBGZvMk/test
```

```
Enter the radius of circle
```

```
9
```

```
Enter base of triangle
```

```
25
```

```
enter height of triangle
```

```
12
```

```
Enter rectangle length
```

```
9
```

```
enter rectangle width
```

```
3
```

```
Area of circle is 254.34
```

```
Area of triangle is :254.34
```

```
Area of rectangle is 27.0
```

```
=== Code Execution Successful ===|
```