

Lab Program 4.

Date _____
Page _____

```
import java.util.Scanner;  
class inputScanner  
{  
    protected Scanner s;  
    public inputScanner()  
    {  
        s = new Scanner(System.in);  
    }  
    public int getInput(String message)  
    {  
        System.out.println(message);  
        return scanner.nextInt();  
    }  
    abstract class Shape extends inputScanner;  
    {  
        protected int a, b;  
        public Shape()  
        {  
            super();  
        }  
        abstract public void printArea();  
    }  
    class Rectangle extends Shape  
    {  
        protected int a, b;  
        public Rectangle()  
        {  
            super();  
        }  
        public void printArea()  
        {  
            a = getInput("Enter the length:");  
            b = getInput("Enter the breadth:");  
        }  
    }
```

```
int area = a * b;  
System.out.println ("Area of the  
Rectangle : " + area);
```

↳ class Triangle extends Shape

```
protected int a, b;  
public Triangle ()  
{  
    super ();
```

↳ public void printArea ()
{

```
a = getInput ("Enter the side1:");
```

```
b = getInput ("Enter the side2:");
```

```
double area = 0.5 * a * b;
```

```
System.out.println ("Area of the Triangle : "  
+ area);
```

↳ class Circle extends Shape

```
protected int a;  
public Circle ()  
{  
    super ();
```

↳ public void printArea ()
{

```
a = getInput ("Enter the radius : ");
```

```
double area = 3.14 * a * a;
```

```
System.out.println ("Area of the circle : "  
+ area);
```

1

2

public class MainShape

3

4

public static void main (String [] args)

5 Rectangle r = new Rectangle ();

6 Triangle t = new Triangle ();

7 Circle c = new Circle ();

8 r.printArea();

9 t.printArea();

10 c.printArea();

11 3

12 1

Output:

Enter the length :

12

Enter the breadth :

4

Area of the Rectangle : 8

Enter side 1 :

12

Enter side 2 :

12

Area of the Triangle : 2.0

Enter the radius :

5

Area of the circle : 78.5