

Lab Program 4: Shape

```

import java.util.*;

abstract class Shape
{
    int a;
    int b;
    abstract void printArea();
}

class Rectangle extends Shape
{
    Rectangle ( int x, int y)
    {
        a = x;
        b = y;
    }

    void printArea()
    {
        System.out.println ( " Area is " + (a*b) );
    }
}

class Triangle extends Shape
{
    Triangle ( int x, int y )
    {
        a = x;
        b = y;
    }

    void printArea()
    {
        System.out.println ( " Area is " + (a*b*0.5) );
    }
}

```

```
class Circle extends Shape {
```

```
    Circle (int n)
```

```
    { a = n;
    }
```

```
    void printArea ()
```

```
    { System.out.println ("area is " + (a * a * 3.14));
    }
```

```
class lab4
```

```
{ public static void main (String args [])
```

```
{
```

```
    int l, b, ba, h, ra;
```

```
    Scanner sc = new Scanner (System.in);
```

```
    System.out.println ("enter the length and  
                          breadth of rectangle");
```

```
    l = sc.nextInt();
```

```
    b = sc.nextInt();
```

```
    Rectangle r = new Rectangle (l, b);
```

```
    r.printArea();
```

```
    System.out.println ("Enter the base and height of triangle");
```

```
    ba = sc.nextInt();
```

```
    h = sc.nextInt();
```

```
    Triangle t = new Triangle (ba, h);
```

```
    t.printArea();
```

```
    System.out.println ("Enter the radius of circle");
```

```
    ra = sc.nextInt();
```

```
    Circle c = new Circle (ra);
```

```
}
```

```
}
```