

Lab4

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```

import java.util.Scanner;
abstract class Shape
{
    double d1;
    double d2;
    abstract void printArea();
}

class Rectangle extends Shape
{
    Rectangle()
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the dimensions of rectangle:");
        d1 = sc.nextDouble();
        d2 = sc.nextDouble();
    }

    void printArea()
    {
        System.out.println("Area of rectangle : " + d1*d2);
    }
}

class Triangle extends Shape
{
    Triangle()
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter dimensions of triangle:");
    }
}
    
```

```
d1 = sc.nextDouble();
d2 = sc.nextDouble();
```

```
}
```

```
void printArea()
```

```
{
```

```
System.out.println("Area of triangle : " + (d1*d2)/2);
```

```
}
```

```
}
```

```
class Circle extends Shape
```

```
{
```

```
double radius;
```

```
Circle()
```

```
{
```

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

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

```
radius = sc.nextDouble();
```

```
}
```

```
void printArea()
```

```
{
```

```
System.out.println("Area of circle : " +  
(3.14*radius*radius));
```

```
}
```

```
}
```

```
class ShapeMain
```

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

```
{ Rectangle r = new Rectangle();
```

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

```
Triangle t = new Triangle();
```

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

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

```
c.printArea();
```

```
}
```

```
}
```