

INHERITENCE - SHAPE - ABSTRACT

```
import java.util.*;
abstract class shape
{
    int a, b;
    abstract void public void printArea();
}

class rectangle extends shape
{
    rectangle(int x, int y)
    {
        a = x;
        b = y;
    }

    public void printArea()
    {
        System.out.println("Area of rectangle : " + a * b);
    }
}
```

```
class triangle extends shape
{
```

```
    triangle (int x , int y)
    {
```

```
        a = x;
```

```
        b = y;
```

```
    }
```

```
    public void printArea ()
    {
```

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

```
    }
}
```

```
class circle extends shape
{
```

```
    circle (int y)
    {
```

```
        a = 0;
```

```
        b = y;
```

```
    }
```

```
    public void printArea ()
    {
```

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

```
    }
```

```
}
```

```
class Main
{
```

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

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

```
        int a, b;
```

```
        System.out.println("Enter length of rectangle:");
```

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

```
        System.out.print("Enter breadth of rectangle:");
```

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

```
        rectangle r = new rectangle (a, b);
```

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

```
        System.out.print("Enter height of triangle:");
```

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

```
        System.out.print("Enter base of triangle:");
```

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

```
        triangle t = new triangle (a, b);
```

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

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

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

```
        System.out.print circle c = new Circle (b);
```

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

```
    }
}
```