

Area

```
import java.util.Scanner
```

```
abstract class Shape {
```

```
    int x, y;
```

```
    double area;
```

```
    abstract void printarea();
```

```
}
```

```
class Rectangle extends Shape {
```

```
    void printarea() {
```

```
        area = x * y;
```

```
        set System.out.println("Area of the Rectangle = " + area);
```

```
    }
```

```
}
```

```
class Triangle extends Shape {
```

```
    void printarea() {
```

```
        area = 0.5 * x * y;
```

```
        System.out.println("Area of the triangle = " + area);
```

```
    }
```

```
}
```

```
class Circle extends Shape {
```

```
    void printarea() {
```

```
        area = 3.1415 * x * x;
```

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

```
    }
```

```
}
```

```
class Area {
```

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

```
        int choice;
```

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

```
        System.out.println("1: Rectangle 2: Triangle 3: Circle");
```

```
        Switch choice = s.nextInt();
```

Output

1: Rect

2: Trian

3: Circle

1

Enter

6

Area

On switch (choice) {

case 1: Rectangle r1 = new Rectangle();

System.out.println("Enter the length and width
of the rectangle:");

r1.x = s.nextInt();

r1.y = s.nextInt();

r1.printarea();

break;

case 2: Triangle t1 = new Triangle();

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

t1.x = s.nextInt();

t1.y = s.nextInt();

t1.printarea();

break;

case 3: Circle c1 = new Circle();

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

c1.x = s.nextInt();

c1.printarea();

break;

}

}

}

Output:

1: Rectangle

2: Triangle

3: Circle

1

Enter length and width of the rectangle:

6 4

Area of the Rectangle is = 24.0

1: Rectangle

2: Triangle

3: Circle

2

Enter the height and base of the triangle:

5 3

Area of the Triangle is = 7.5

1: Rectangle

2: Triangle

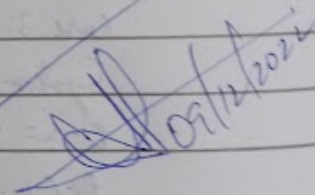
3: Circle

3

Enter the radius of the circle:

4

Area of the circle is = 50.264

 09/12/2021

```
PS C:\Users\bmsce\Desktop\1BM21CS032\00J> java Area
```

```
1:Rectangle
```

```
2:Triangle
```

```
3:Circle
```

```
1
```

```
Enter the length and width of the rectangle:
```

```
6 4
```

```
Area of the Rectangle is= 24.0
```

```
PS C:\Users\bmsce\Desktop\1BM21CS032\00J> java Area
```

```
1:Rectangle
```

```
2:Triangle
```

```
3:Circle
```

```
2
```

```
Enter the height and base of the triangle:
```

```
5 3
```

```
Area of the Triangle is= 7.5
```

```
PS C:\Users\bmsce\Desktop\1BM21CS032\00J> java Area
```

```
1:Rectangle
```

```
2:Triangle
```

```
3:Circle
```

```
3
```

```
Enter the radius of the Circle:
```

```
4
```

```
Area of the Circle is= 50.264
```