

```
3 ▶ public class MainClass {
4
5     private Scanner scan = new Scanner(System.in);
6     private AreaOfRectangle aor = new AreaOfRectangle();
7     private AreaOfTriangle aot = new AreaOfTriangle();
8     private AreaOfCircle aoc = new AreaOfCircle();
9     private VolumeOfCone voc = new VolumeOfCone();
10
11     public MainClass() {
12         System.out.println("Welcome to Java");
13
14         System.out.println("Calculate Rectangle!");
15         System.out.println("Width: ");
16         aor.setWidth(scan.nextDouble());
17         System.out.println("Height: ");
18         aor.setHeight(scan.nextDouble());
19         System.out.println("Area of Rectangle: " + Double.toString(aor.calculateArea()));
20
21         System.out.println("Calculate Triangle!");
22         System.out.println("Width: ");
23         aot.setWidth(scan.nextDouble());
24         System.out.println("Height: ");
25         aot.setHeight(scan.nextDouble());
26         System.out.println("Area of Rectangle: " + Double.toString(aot.calculateArea()));
27
28         System.out.println("Calculate Circle!");
29         System.out.println("Radius: ");
30         aoc.setRadius(scan.nextDouble());
31         System.out.println("Area of Circle: " + Double.toString(aoc.calculateArea()));
32
33         System.out.println("Calculate Cone!");
34         System.out.println("Radius: ");
35         voc.setRadius(scan.nextDouble());
36         System.out.println("Height: ");
37         voc.setHeight(scan.nextDouble());
38         System.out.println("Volume of Cone: " + Double.toString(voc.calculateVolume()));
39     }
40 }
```

```
41 ▶ public static void main(String[] args) {  
42     new MainClass();  
43 }  
44  
45 public class AreaOfRectangle{  
46  
47     private double width, height;  
48  
49     public double calculateArea(){  
50         return getWidth() * getHeight();  
51     }  
52  
53     public double getWidth() {  
54         return width;  
55     }  
56  
57     public double getHeight() {  
58         return height;  
59     }  
60  
61     public void setHeight(double height) {  
62         this.height = height;  
63     }  
64  
65     public void setWidth(double width) {  
66         this.width = width;  
67     }  
68 }
```

```
69     public class AreaOfTriangle {
70         private double width, height;
71
72         public double calculateArea(){
73             return getWidth() * getHeight() * 0.5;
74         }
75
76         public double getWidth() {
77             return width;
78         }
79
80         public double getHeight() {
81             return height;
82         }
83
84         public void setHeight(double height) {
85             this.height = height;
86         }
87
88         public void setWidth(double width) {
89             this.width = width;
90         }
91     }
```

```
92     public class AreaOfCircle {
93
94         private double radius;
95
96         public double calculateArea(){
97             return radius * radius * Math.PI;
98         }
99
100        public double getRadius() {
101            return radius;
102        }
103
104        public void setRadius(double radius) {
105            this.radius = radius;
106        }
107    }
```

```
108 public class VolumeOfCone {
109
110     private double radius, height;
111
112     public double calculateVolume(){
113         return (Math.PI)*(radius * radius)*(height/3);
114     }
115
116     public double getRadius() {
117         return radius;
118     }
119
120     public void setRadius(double radius) {
121         this.radius = radius;
122     }
123
124     public double getHeight() {
125         return height;
126     }
127
128     public void setHeight(double height) {
129         this.height = height;
130     }
131 }
132 }
```

```
Welcome to Java
Calculate Rectangle!
Width:
10
Height:
10
Area of Rectangle: 100.0
Calculate Triangle!
Width:
10
Height:
10
Area of Rectangle: 50.0
Calculate Circle!
Radius:
1
Area of Circle: 3.141592653589793
Calculate Cone!
Radius:
1
Height:
1
Volume of Cone: 1.0471975511965976

Process finished with exit code 0
```