```
 1 package theshape;
 2 /**
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 5 Assignment 2
 6 2017-09-29
 7 */
 8 import java.util.Scanner;
 9 import java.text.DecimalFormat;
10
11 public class TheShape{
12     public static void main(String args[]){
13 Scanner sc = new Scanner(System.in);
14         DecimalFormat df = new DecimalFormat("#0.00");
15
16 int num; //this variable declares the option
17 double base,height;
18         //these variables store the dimensions of a triangle
19 double length,width;
20         //these varaibles store the dimensions of a rectangle
21         double areaR,areaT;
22         //these variables store the calculated values based on th user's in
23 System.out.print("Enter 1 for triangle or any other integer for rectangle:
24 num=sc.nextInt();
25
26 if(num == 1){
27            System.out.println("Enter tringle base: ");
28            base=sc.nextDouble();
29
30
31            if(base<0)
32               System.out.println("Base cannot be negative.");
33
34            else{
35                System.out.println("Enter triangle height: ");
36                height=sc.nextDouble();
37                if(height<0)
38                 System.out.println("Height cannot be negative.");
39                else{
40                 areaT=.5*height*base;
41                 System.out.println("Triangle area is " + df.format(areaT));
```

```
put
");
```

```
42                 }
43             }
44 }
45
46 else{
47              System.out.println("Enter rectangle length: ");
48              length=sc.nextDouble();
49
50
51              if(length<0)
52                  System.out.println("length cannot be negative.");
53
54              else{
55                  System.out.println("Enter rectangle width: ");
56                  width=sc.nextDouble();
57                  if(width<0)
58 System.out.println("Width cannot be negative.");
59                  else{
60                   areaR=length*width;
61             System.out.println("Rectangle area is " + df.format(areaR));
62                  }
63              }
64            }
65     }
66 }
```