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fullarray_posneg.java  stringcount.java  operators.java  abstractclass.java
1  /*Develop a Java program to create an abstract class named Shape that contains two integers and an empty method named printArea( ). Provide three classes named Rectangle,
2  Triangle and Circle such that each one of the classes extends the class Shape. Each one of the classes contain only the method printArea( ) that prints the area of the
3  given shape.*/
4  import java.util.Scanner;
5  import java.lang.Math;
6  abstract class Shape{
7      int a1;
8      int a2;
9      Shape(int a,int b){
10         a1=a;
11         a2=b;
12     }
13     abstract void printArea();
14 }
15 class Rectangle extends Shape{
16     Rectangle(int a,int b){
17         super(a,b);
18     }
19     void printArea(){
20         System.out.println("The area of rectngle is:"+a1*a2);
21     }
22 }
23 class Triangle extends Shape{
24     Triangle(int a,int b){
25         super(a,b);
26     }
27     void printArea(){
28         System.out.println("The area of triangle is:"+((a1*a2)/2));
29     }
30 }
31 class Circle extends Shape{
32     Circle(int a,int b){
33         super(a,a);
34     }
35     void printArea(){
36         System.out.printf("The area of circle is: %.2f",a1*Math.PI*a1);
37     }
38 }
39 class ShapeMain{
40     public static void main(String args[]){
41         Rectangle r=new Rectangle(10,20);
42         Triangle t=new Triangle(20,30);
43         Circle c=new Circle(5,0);
44         r.printArea();
45         t.printArea();
46         c.printArea();
47     }
48 }
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Command Prompt

```
C:\Program Files\Java\bin\basic>javac abstractclass.java
```

```
C:\Program Files\Java\bin\basic>java ShapeMain
```

```
The area of rectngle is:200
```

```
The area of triangle is:300
```

```
The area of circle is: 78.54
```

```
C:\Program Files\Java\bin\basic>
```