

**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, 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 given shape.**

```
abstract class shape{  
  
    int x,y;  
  
    abstract void printArea();  
  
    shape(int a,int b){  
  
        x=a;  
  
        y=b;  
  
    }  
  
}  
  
class rectangle extends shape{  
  
    rectangle(int a,int b){  
  
        super(a,b);  
  
    }  
  
    void printArea(){  
  
        System.out.println("The rectangle area is "+x*y);  
  
    }  
  
}
```

```
class triangle extends shape{
triangle(int a,int b){
super(a,b);
}
void printArea(){
System.out.println("The triangle area is "+x*y*0.5);
}
}

class circle extends shape{
circle(int a,int b){
super(a,b);
}
void printArea(){
System.out.println("The triangle area is "+3.14*x*y);
}
}

class jar{
public static void main(String args[]){
rectangle r = new rectangle(2,4);
r.printArea();
triangle t = new triangle(2,3);
t.printArea();
}
```

```
circle c = new circle(3,3);
```

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

```
}
```

```
}
```

### **OUTPUT:**

```
C:\Users\user\Desktop>javac jar.java  
C:\Users\user\Desktop>java jar  
The rectangle area is 8  
The triangle area is 3.0  
The triangle area is 28.259999999999998
```