

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

```
public class TestCases {
```

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

```
        System.out.println("A program to find 3rd angle of triangle and its type.");
```

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

```
        double a1=0;
```

```
        try{
```

```
            System.out.println("Enter angle 1 of triangle.");
```

```
            a1=input.nextDouble();}
```

```
        catch(Exception e){
```

```
            System.out.println("Invalid values for angle");
```

```
        }
```

```
        System.out.println("Enter angle 2 of triangle.");
```

```
        double a2=input.nextDouble();
```

```
        double a3=180-a1-a2;
```

```
        if(a1+a2>=180||a1+a3>=180||a2+a3>=180){
```

```
            System.out.println("Invalid angles, cannot draw a triangle");
```

```
            return;
```

```
        }
```

```
        else{
```

```
            System.out.println("Third angle is = "+a3);
```

```
        }
```

```
        if(a1==a2||a2==a3||a1==a3){
```

```
System.out.println("This triangle is isoceles triangle.");  
}  
else if(a1==a2&&a2==a3){  
System.out.println("This triangle is Equilateral triangle");  
}  
else{  
System.out.println("This triangle is Scalene triangle");  
}  
}  
}
```