

Lab Goal : This lab was designed to teach you more about objects, input, output formatting, and the Math class.

Lab Description : Calculate the area of a triangle given the values for all three sides.

```
perimeter = a + b + c
s = perimeter / 2
area= sqrt(s(s-a)(s-b)(s-c))
```

Sample Data :

```
3 3 3
7 8 9
10 9 11
```

Files Needed ::

```
Triangle.java
TriangleRunner.java
```

Sample Output :

```
Enter side A :: 3
Enter side B :: 3
Enter side C :: 3
```

```
3 3 3
Area == 3.89711
```

```
Enter side A :: 7
Enter side B :: 8
Enter side C :: 9
```

```
7 8 9
Area == 26.83282
```

```
Enter side A :: 10
Enter side B :: 9
Enter side C :: 11
```

```
10 9 11
Area == 42.42641
```

algorithm help

set variables a, b, and c

calculate Perimeter

perimeter = a + b + c

calculate Area

s = perimeter / 2

area= sqrt(s(s - a)(s - b)(s - c))

print results

output sides & area

FORMATTING OUTPUT

```
//printf is a void method
System.out.printf("%.3f\n",9.541724);           //outs 9.542
```

```
//format is a String return method
System.out.println(String.format("%.3f",9.541724)); //outs 9.542
```