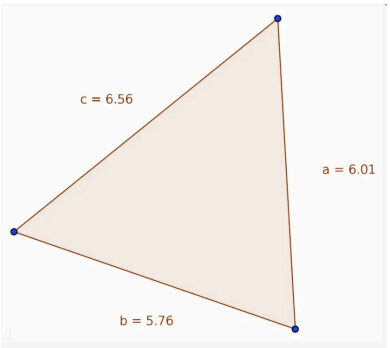
Heron's Formula - Calculating the Area of a Single Triangle.

Heron's formula is a way to calculate the area of ANY triangle, knowing the lengths of it's three sides, a, b and c.



First, calculate the semiperimeter. This is just half of the triangle's perimeter.

s = (a + b + c) / 2
In our example,
s = (6.56 + 6.01 + 5.76)/2
s = 9.165

Then, calculate the following differences:
s - a
s - b
s - c

E.g.
s - a = 9.165 - 6.56 = 2.605
s - b = 9.165 - 6.01 = 3.155
s - c = 9.165 - 5.76 = 3.405

Finally, substitute your answers into the following equation:
sqrt= square root

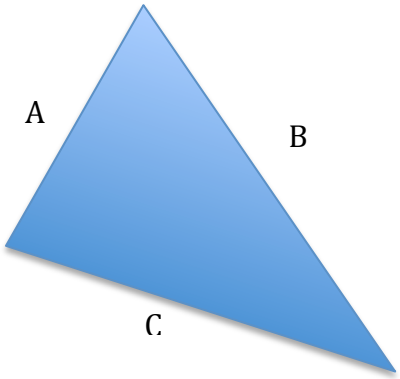
A = sqrt(s * (s-a) * (s-b) * (s-c))
(Multiply the three differences together, along with the semiperimeter, and then take the square root.)

A = sqrt(9.165 * 2.605 * 3.155 * 3.405)
A = sqrt(256.482)
A = 16.015
This gives the area of a single triangle.

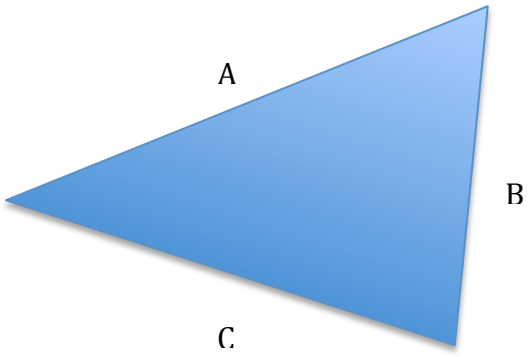
You give it a shot now. Feel free to get help from those who love math in your house! But make sure that you understand it.

Length of side

A= 8
B= 16
C= 12



A= 210.6
B= 110.3
C= 120.9



For the more daring among you!

A= 14
B= 12
C= 8
D= 16