

C	Session	Input & Output	Question Information	Level 2 Challenge 2
<p>Problem Description:</p> <p>Sajid loves super heroes he used to imagine himself to be a hero.</p> <p>One day his teacher was taking a class about shapes and asked the students to find the Area of the triangle using Heron's formula.</p> <p>Sajid misheard this as Hero's formula and was curious to discover the Hero's formula for finding the area of the triangle.</p> <p>Help Sajid to solve his math problem by using the correct logic in your code.</p> <p>Functional Description:</p> <p>Area = $\sqrt{s(s - a)(s - b)(s - c)}$, where</p> <p>$s = (a + b + c) / 2$ and</p> <p>a, b & c are the sides of triangle.</p> <p>Constraints:</p> <p>$1 \leq a \leq 15$</p> <p>$1 \leq b \leq 15$</p> <p>$1 \leq c \leq 15$</p> <p>Input Format:</p> <p>Only Line of input has 3 integers representing 3 side of the triangle separated by a space.</p> <p>Output Format:</p> <p>Print the area of the triangle with only two values after the decimal point</p>				

✓ Logical Test Cases

Test Case 1	Test Case 2
INPUT (STDIN)	INPUT (STDIN)
5 5 4	6 5 4
EXPECTED OUTPUT	EXPECTED OUTPUT
9.17	6.48

✓ Mandatory Test Cases

Test Case 1	Test Case 2	Test Case 3
KEYWORD	KEYWORD	KEYWORD
int a,b,c;	float s,area;	scanf

Test Case 4
KEYWORD
printf

✓ Complexity Test Cases

Test Case 1	Test Case 2	Test Case 3
CYCLOMATIC COMPLEXITY	TOKEN COUNT	NLOC
1	95	13

CODE:

```
//CH.SC.U4CSE24015
#include <stdio.h>
#include <math.h>
int main()
{
    int a,b,c;
    float s,area;
    scanf("%d%d%d",&a,&b,&c);
    s = (a+b+c)/2;
    area = sqrt((s*(s-a)*(s-b)*(s-c)));
    printf("%.2f",area);
    return 1;
}
```

OUTPUT:

```
5 5 4
9.17
Process returned 1 (0x1)    execution time : 24.824 s
Press any key to continue.
```

```
6 5 4
6.48
Process returned 1 (0x1)    execution time : 4.615 s
Press any key to continue.
```