Trials and Triangulations

Problem ID: a01p04trials

More math? You got it. That's what computers do, they compute.

Heron's formula gives the area, A, of a triangle with sides a, b, and c as $A = \sqrt{s(s-a)(s-b)(s-c)}$ where $s = (a+b+c)/2$.

Write a program that prompts for three integers, a, b, and c, denoting the lengths of the sides of a triangle. Calculate the area, and print the result.

Hint: You can use the `sqrt` function in the `math` module.

Input

Input consists of three lines. The first line consists of one integer a. The second line consists of one integer b. The third line consists of one integer c. It is guaranteed that $1 \leq a, b, c \leq 100$ and that the values can form a triangle.

Output

Output one line with one floating point number A, the area of the triangle. The output number should have an absolute or relative error of at most 10^{-9}.

Sample Input 1	**Sample Output 1**
1 1 1	0.433012701892219

Sample Input 2	**Sample Output 2**
1 2 3	0.000000000000000

Sample Input 3	**Sample Output 3**
2 2 3	1.984313483298443

Sample Input 4	**Sample Output 4**
12 9 19	41.952353926806062

Sample Input 5	**Sample Output 5**
5 4 3	6.000000000000000

Sample Input 6	**Sample Output 6**
5 12 13	30.000000000000000