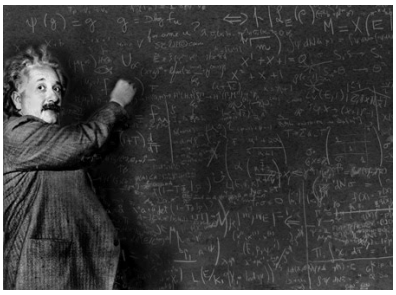
J Janitor Troubles

Time limit: 1s



While working a night shift at the university as a janitor, you absent-mindedly erase a blackboard covered with equations, only to realize afterwards that these were no ordinary equations! They were the notes of the venerable *Professor E. I. N. Stein* who earlier in the day solved the elusive *maximum quadrilateral problem*! Quick, you have to redo his work so no one noticed what happened.

The *maximum quadrilateral problem* is quite easy to state: given four side lengths s_1, s_2, s_3 and s_4, find the maxiumum area of any quadrilateral that can be constructed using these lengths. A quadrilateral is a polygon with four vertices.

Input

The input consists of a single line with four positive integers, the four side lengths s_1, s_2, s_3, and s_4.

It is guaranteed that $2s_i < \sum_{j=1}^{4} s_j$, for all i, and that $1 \leq s_i \leq 1000$.

Output

Output a single floating point number, the maximal area as described above. Your answer must be accurate to an absolute or relative error of at most 10^{-6}.

Sample Input 1	**Sample Output 1**
3 3 3 3	9

Sample Input 2	**Sample Output 2**
1 2 1 1	1.299038105676658

Sample Input 3	**Sample Output 3**
2 2 1 4	3.307189138830738