

1084. Goat in the Garden

Time limit: 1.0 second

Memory limit: 64 MB

Someone has let a goat in a square kitchen-garden and had bound it to a stake. The stake is driven into the ground in the very midst of the square. The goat is hungry as a hunter and very voracious, and eats everything that can be reached without leaving the square and tearing off the rope. What area of the kitchen-garden will be ate round?

Input

contains lengths of the garden sides and a cord length in meters (positive integers not exceeding 100, located in one line and separated with a space).

Output

should contain an area of the kitchen-garden (in square meters to within 3 symbols after a decimal point), ate round by the goat.

Sample

input	output
10 6	95.091

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Problem Source: The 3rd high school children programming contest, USU, Yekaterinburg, Russia, March 4, 2001