



CODEFORCES

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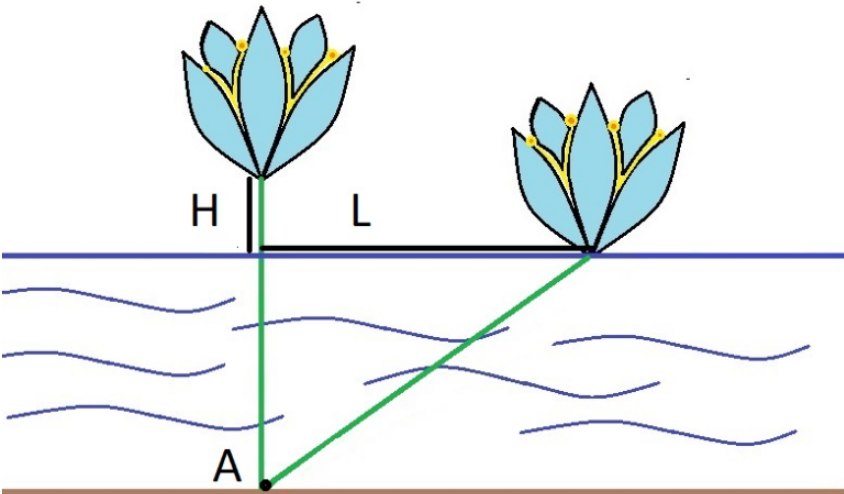
HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING API HELP HONORCUP CALENDAR

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

B. Water Lily

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

While sailing on a boat, Inessa noticed a beautiful water lily flower above the lake's surface. She came closer and it turned out that the lily was exactly  $H$  centimeters above the water surface. Inessa grabbed the flower and sailed the distance of  $L$  centimeters. Exactly at this point the flower touched the water surface.



Suppose that the lily grows at some point  $A$  on the lake bottom, and its stem is always a straight segment with one endpoint at point  $A$ . Also suppose that initially the flower was exactly above the point  $A$ , i.e. its stem was vertical. Can you determine the depth of the lake at point  $A$ ?

Input

The only line contains two integers  $H$  and  $L$  ( $1 \leq H < L \leq 10^6$ ).

Output

Print a single number — the depth of the lake at point  $A$ . The absolute or relative error should not exceed  $10^{-6}$ .

Formally, let your answer be  $A$ , and the jury's answer be  $B$ . Your answer is accepted if and only if  $\frac{|A-B|}{\max(1,|B|)} \leq 10^{-6}$ .

Examples

input	Copy
1 2	
output	Copy
1.500000000000	

Codeforces Round #576 (Div. 2)

Finished

Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

Problem tags

geometry math \*1000

No tag edit access

Contest materials

Announcement (en)

Tutorial (en)

<b>input</b>	<a href="#">Copy</a>
3 5	
<b>output</b>	<a href="#">Copy</a>
2.6666666666667	

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The only programming contests Web 2.0 platform  
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