

Jamal and Kamal were two friends. They were renowned for their friendship in their area. Once Jamal lend a big amount from Kamal and didn't back that within time. At first Kamal didn't say anything to Jamal but after few days when he understood that he was not going to give his money, he became rough on him. And the result is they are now enemies to each other.

After 3 months there came another two friends to live, Rahim and Karim. Their houses stood such a way that the lines connecting Jamal's and Kamal's houses with Rahim are perpendicular; the same applies to Karim. Not only this, the line joining Rahim and Karim's houses made angle ' $\pi/4$ ' radians with the line joining

Jamal and Kamal's houses. Intersection of both of the joining lines was known as "Danger Point". Know why? Same thing happened with Rahim and Karim! Money had done the damage in their friendship and when the four meet, surprisingly it is in that "Danger Point", there arise a long quarrel. And others feel really annoyed with them. So, you a good programmer and neighbor of them decided to discontinue this situation. To solve this main problem, first you have to solve a little problem: Find out the distance of Rahim or Karim's house from the "Danger Point".



Input

You know the two data only, the distance between Jamal and Kamal's house, and one distance from "Danger Point" to Rahim or Karim's house. And you know you will stop when you find both of them zero. That is they will stay together.

Output

Output is a single-lined single value (6 digits after the decimal point) representing distance from "Danger Point" to Rahim or Karim's house (other one's without the given one) for correct input set and for incorrect input set just print 'INCORRECT INFORMATION !!!'.

Sample Input

```
333.25 101.154
50.50 10.10
10.10 50.50
0 0
```

Sample Output

```
212.827746
34.250766
INCORRECT INFORMATION !!!
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