10491   Cows and Cars

In television contests, participants are often asked to choose one from a set of or doors for example, one or several of which lead to different prizes. In this problem we will deal with a specific kind of such a contest. Suppose you are given the following challenge by the contest presenter:

In front of you there are three doors. Two of them hide a cow, the other one hides your prize - a car. After you choose a door, but before you open it, I will give you an hint, by opening one of the doors which hides a cow (I'll never open the door you have chosen, even if it hides a cow). You will then be able to choose if you want to keep your choice, or if you wish to change to the other unopened door. You will win whatever is behind the door you open.

In this example, the probability you have of winning the car is 2/3 (as hard as it is to believe), assuming you always switch your choice when the presenter gives you the opportunity to do so (after he shows you a door with a cow). The reason of this number (2/3) is this - if you had chosen one of the two cows, you would surely switch to the car, since the presenter had shown you the other cow. If you had chosen the car, you would switch to the remaining cow, therefore losing the prize. Thus, in two out of three cases you would switch to the car. The probability to win if you had chosen to stick with your initial choice would obviously be only 1/3, but that isn't important for this problem.

In this problem, you are to calculate the probability you have of winning the car, for a generalization of the problem above:

- The number of cows is variable

- The number of cars is variable (number of cows + number of cars = total number of doors)

- The number of doors hiding cows that the presenter opens for you is variable (several doors may still be open when you are given the opportunity to change your choice)

You should assume that you always decide to switch your choice to any other of the unopen doors after the presenter shows you some doors with cows behind it.

Input

There are several test cases for your program to process. Each test case consists of three integers on a line, separated by whitespace. Each line has the following format:

$NCOWS\ NCARS\ NSHOW$

Where $NCOWS$ is the number of doors with cows, $NCARS$ is the number of doors with cars and $NSHOW$ is the number of doors the presenter opens for you before you choose to switch to another unopen door.

The limits for your program are:

$1 \leq NCOWS \leq 10000$

$1 \leq NCARS \leq 10000$

$0 \leq NSHOW < NCOWS$

Output

For each of the test cases, you are to output a line containing just one value - the probability of winning the car assuming you switch to another unopen door, displayed to 5 decimal places.

Sample Input

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2 1 1
5 3 2
2000 2700 900
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Sample Output

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0.66667
0.52500
0.71056
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