UVa Online Judge

10218 Let's Dance!!

Consider the following scenario:

You are a University Student; all of your friends consider you courageous, most of the girls find you handsome, you are quite a good student, recently your team has won a regional contest of ACM ICPC and so your confidence is very high. In a party you find someone nice and ask her to dance but she seems smarter than (as always is the case) you. She tells you,

> *"There are M gentle men and W ladies in this party except us. You have C candies in your hand and you distribute them randomly among all these guests (M men and W ladies), of course if possible. Now you collect all the candies from all the gentlemen and this number of candies is CC. If you can evenly distribute these (CC) candies equally between two groups (These two groups are two arbitrary groups) I will dance with you."*

Now tell me what is the probability of her dancing with you.

Input

The input file contains several lines of input. Each line contains three non-negative integers M ($M \leq 1000$), W ($W \leq 1000$) and C ($C \leq 100$). The meanings of the symbols are explained before. The input is terminated by a line where $M = 0$ and $W = 0$. You need not process this input.

Output

For each line of input, you should produce one line of output, which is a floating-point number. This output is the probability of her dancing with you. The number contains seven digits after the decimal point. An error less than 2E-7 or $2 * 10^{-7}$ will be overlooked.

Sample Input

```
10 20 20
10 20 7
0 0 29
```

Sample Output

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0.5000000
0.5002286
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