

This Time I Will Be Lucky

Input file: *standard input*
Output file: *standard output*
Time limit: 5 seconds
Memory limit: 1024 mebibytes

In a casino, there is a bag with a white balls and b black balls. Until the bag is empty, we can pick one ball randomly from the bag, and if it is white, we gain 1 dollar; otherwise, we lose 1 dollar. After that, we trash this ball. We can stop at any time, including the time before picking any balls. What maximum expected profit can we get?

Input

The input contains two space-separated integers, a and b ($0 \leq a, b \leq 100\,000$).

Output

Print one real number: the maximum expected profit. The answer will be considered correct if the absolute or relative error is at most 10^{-6} .

Examples

<i>standard input</i>	<i>standard output</i>
0 0	0
3 4	0.342857142857142857
2 2	0.666666666666666666
3 0	3

Note

Don't forget `setprecision` if you use C++.