Weightlifting

In competitive weightlifting, you must perform a sequence of lifts. You have a constant strength ***s***, and a decreasing energy reserve ***e***. For each lift, you may choose any positive (not necessarily integer) weight *w* to attempt. If ***s*≥*w***, the lift succeeds and your energy goes down by $e_{success}$; if ***s*<*w***, the lift fails and your energy goes down by $e_{failure}$. You may continue attempting lifts as long as ***e*>0**. If at any point ***e*≤0**, you can make no further attempts. Your score is the maximum weight you successfully lift or 0 if every attempt failed.

Ideally, you should lift exactly at your strength limit. However, you do not know your strength **s**. You only know that you can definitely lift the empty bar (25kg), and that the maximum conceivable lift is (225kg). How close to an optimal score can you guarantee? That is, what's the smallest *d* for which you can ensure a score of at least ***s*-*d***?

For example, suppose ***e*=4**, $e_{success}$=1 and $e_{failure}$=2. You try to lift 200kg and fail. Now, ***e*=2**. You try 100kg and succeed. Now, ***e*=1**. You try 150kg and succeed. Now, ***e*=0** and you must stop. You know that you can lift 150kg, but you cannot lift 200kg. Your strength ***s*** must be somewhere between 150kg and 200kg. You scored 150, your optimal score might be as high as (just under) 200. You still don't know ***s***, but you know you're within 50. In this case, ***d*=50**.

That's a specific example, and the strategy used is certainly not optimal. You can do better. What's the smallest value of ***d*** you can get so that you can guarantee a score of at least ***s*-*d*** for any and all possible values of ***s***?

Input

Each input will consist of a single test case. Note that your program may be run multiple times on different inputs. The input consists of a single line with 3 space-separated integers ***e***, $e_{success}$, $e_{failure}$ ($1 \le e, e_{success}, e_{failure} \le 10^7$), where ***e*** is your beginning energy reserve, $e_{success}$ is the amount of energy expended in a successful lift, and $e_{failure}$ is the amount of energy expended in a failed lift.

Output

Output a single line with a real number ***d***, rounded to exactly 6 decimal places, which is the minimum weight in kg such that you can ensure a score of at least ***s*-*d***.

Sample Input	Sample Output
1 3 3	112.500000
12 3 3	13.333333
3000 2 3	0.000000