Problem A. Aftermath

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	512 mebibytes

Once upon a time, you had a nice positive integer n.

Since you like division, you quickly found all its positive integer divisors.

Not being a mean guy, you calculated a — the arithmetic mean of divisors of n. Surprisingly, this number turned out to be an integer.

Some time passed, and you calculated h — the harmonic mean of divisors of n. Even more surprisingly, this number turned out to be an integer, too!

Unfortunately, your memory let you down, and now you remember a and h but don't remember n. However, you remember that n didn't exceed 10^{15}.

Your muse suggested to bring good old times back and restore any value of n matching your records.

Input

The first line of the input contains a single positive integer a.

The second line of the input contains a single positive integer h.

It's guaranteed that there exists a positive integer $n \le 10^{15}$ such that the arithmetic mean of divisors of n is equal to a, which the harmonic mean of divisors of n is equal to h.

Output

Output any positive integer n not exceeding 10^{15} which doesn't contradict the given information.

Example

standard input	standard output
3 2	6

Note

The *arithmetic mean* is the sum of a collection of numbers divided by the number of numbers in the collection. For example, the arithmetic mean of 1, 2, 3 and 6 is equal to $\frac{1+2+3+6}{4} = 3$.

The *harmonic mean* is the reciprocal of the arithmetic mean of the reciprocals of numbers in the collection. For example, the harmonic mean of 1, 2, 3 and 6 is equal to $\left(\frac{1^{-1}+2^{-1}+3^{-1}+6^{-1}}{4}\right)^{-1} = 2$.

Thus, in the first example test case, $n = 6$ satisfies the requirements since its divisors are 1, 2, 3 and 6.