

Ladder

You are attempting to climb up the roof to fix some leaks, and have to go buy a ladder. The ladder needs to reach to the top of the wall, which is h centimeters high, and in order to be steady enough for you to climb it, the ladder can be at an angle of at most V degrees from the ground. How long does the ladder have to be?

Input

The input consists of a single line containing two integers h and V , with meanings as described above. You may assume that $1 \leq h \leq 10000$ and that $1 \leq V \leq 89$.

Output

Write a single line containing the minimum possible length of the ladder in centimeters, rounded *up* to the nearest integer.

Sample Input

500 70

Sample Input 2

1000 10

Sample Output 1

533

Sample Output 2

5759