Ladder

Problem ID: ladder
CPU Time limit: 1 secon
Memory limit: 1024 MB
Difficulty: 1.3

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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 1

```
500 70
```

Sample Output 1

```
533
```

Sample Input 2

```
1000 10
```

Sample Output 2

```
5759
```