

B. Ropes

time limit per test: 1 second
memory limit per test: 256 megabytes

There are n ropes, you need to cut k pieces of the same length from them. Find the maximum length of pieces you can get.

Input

The first line contains two integers n and k ($1 \leq n, k \leq 10000$). Next n lines contain one number each, the length of the rope a_i ($1 \leq a_i \leq 10^7$).


Output

Output one real number, maximum length of pieces you can get. The answer will be considered correct if the relative or absolute error does not exceed 10^{-6} .

Example

input	Copy
4 11 802 743 457 539	
output	Copy
200.5	

→ Submit?

Language: GNU G++17 7.3.0 Choose file: [Choose File](#) No file chosen[Submit](#)