Problem B. Product

Input file:	*standard input*
Output file:	*standard output*
Time limit:	2 seconds
Memory limit:	8 mebibytes (16 mebibytes for Java)

Warning: Pay attention to the unusual memory limit.

You are given k prime numbers $p_1, p_2 \ldots, p_k$ and an integer N. Your task is to find the largest integer not exceeding N whose prime factorization contains only these prime numbers.

For example, if the prime numbers are $2, 3, 7$, the set of numbers whose factorization contains only these primes is $\{1, 2, 3, 4, 6, 7, 8, 9, 12, 14, 16, 18, 21, 24, 27, 28, 32, 36, 42, 48, 49, 54, 56, 63, 64, 72, 81, 84, 96, 98, \ldots\}$.

Input

The first line of the input contains two integers k, N ($k \geq 1$, $1 \leq N \leq 10^{18}$) described above. The second line contains k distinct prime numbers $p_1, \ldots, p_k$ ($2 \leq p_i \leq 100$).

Output

You should output a single positive integer – the largest number not exceeding N whose prime factorization contains only prime numbers $p_1, p_2, \ldots, p_k$.

Example

standard input	standard output
3 30 2 3 7	28