Problem A. Exponential

Time limit 2000 ms
Mem limit 1048576 kB

Problem Statement

You are given a positive integer X. Find the largest *perfect power* that is at most X. Here, a perfect power is an integer that can be represented as b^p, where b is an integer not less than 1 and p is an integer not less than 2.

Constraints

- $1 \leq X \leq 1000$
- X is an integer.

Input

Input is given from Standard Input in the following format:

```
X
```

Output

Print the largest perfect power that is at most X.

Sample 1

Input	Output
10	9

There are four perfect powers that are at most 10: 1, 4, 8 and 9. We should print the largest among them, 9.

Sample 2

Input	Output
1	1

Sample 3

Input	Output
999	961