DMOPC '19 Contest 6 P2 - Grade 10 Math

Time limit: 2.0s **Memory limit:** 256M

Counting is very difficult so Veshy asks you for help. You are given two positive integers, a and b. You want to find the highest power of a, n, that will divide into $b!$. In other words, you want to find the maximum n such that a^n divides into $b!$.

Input Specification

The input is a single line containing two space-separated integers, a and b in that order. $2 \leq a < b \leq 10^6$

Output Specification

Output on a single line, the number n such that a^n divides into $b!$ and n is the greatest possible.

Sample Input 1

```
8 849
```

Sample Output 1

```
281
```

Sample Input 2

```
2 2020
```

Sample Output 2

```
2013
```

Explanation

In sample input 1, 8^{281} is the highest power of 8 that can divide into $849!$.
In sample input 2, 2^{2013} is the highest power of 2 that can divide into $2020!$.