

Project Euler #47: Distinct primes factors

This problem is a programming version of [Problem 47](#) from [projecteuler.net](#)

The first two consecutive numbers to have two distinct prime factors are:

$$\begin{aligned}14 &= 2 \times 7 \\15 &= 3 \times 5\end{aligned}$$

The first three consecutive numbers to have three distinct prime factors are:

$$\begin{aligned}644 &= 2^2 \times 7 \times 23 \\645 &= 3 \times 5 \times 43 \\646 &= 2 \times 17 \times 19\end{aligned}$$

Given N find all the K consecutive integers, where first integer is $\leq N$ to have exactly K distinct prime factors. Print the first of these numbers in ascending order.

Input Format

Input contains two integers N and K .

Output Format

Print the answer corresponding to the test case. Print each integer in a new line.

Constraints

$$\begin{aligned}20 &\leq N \leq 2 \times 10^6 \\2 &\leq K \leq 4\end{aligned}$$

Sample Input#00

```
20 2
```

Sample Output#00

```
14
20
```

Sample Input#01

```
644 3
```

Sample Output

```
644
```

