Project Euler #47: Distinct primes factors

Problem Statement

This problem is a programming version of Problem 47 from projecteuler.net

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

$$14 = 2 \times 7$$
$$15 = 3 \times 5$$

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

$$644 = 2^2 \times 7 \times 23$$
$$645 = 3 \times 5 \times 43$$
$$646 = 2 \times 17 \times 19$$

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
$20 \leq N \leq 2 \times 10^6$
$2 \leq K \leq 4$

Sample Input#00

```
20 2
```

Sample Output#00

```
14
20
```

Sample Input#01

```
644 3
```

Sample Output

```
644
```