# 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:
$$14 = 2 × 7 \\ 15 = 3 × 5$$

The first three consecutive numbers to have three distinct prime factors are: $$644 = 2^2 × 7 × 23 \\ 645 = 3 × 5 × 43 \\ 646 = 2 × 17 × 19$$

Given $N$ find all the $K$ consecutive integers, where first integer is $\le N$ 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**
$20 \le N \le 2 \times 10^6$
$2 \le K \le 4$

**Sample Input#00**

```
20 2
```

**Sample Output#00**

```
14
20
```

**Sample Input#01**

```
644 3
```

**Sample Output**

```
644
```