

# Project Euler #49: Prime permutations

This problem is a programming version of [Problem 49](#) from [projecteuler.net](#)

The arithmetic sequence, **1487, 4817, 8147** in which each of the terms increases by **3330** is unusual in two ways: (i) each of the three terms are prime, and, (ii) each of the 4-digit numbers are permutations of one another.

There are no arithmetic sequences made up of three **1**–, **2**–, or **3** – *digit* primes, exhibiting this property.

You are given ***N*** and ***K***, find all ***K*** size sequences where first element is less than ***N*** and ***K*** elements are permutations of each other, are prime and are in AP(Arithmetic Progression).

Print the answer as concatenated integer formed by joining ***K*** terms.

## Input Format

Input contains two integers ***N*** and ***K***

## Constraints

$$2000 \leq N \leq 1000000$$

$$3 \leq K \leq 4$$

## Output Format

Print the answer corresponding to the test case. each in new line in numerically sorted order of smallest value.

## Sample Input

```
2000 3
```

## Sample Output

```
148748178147
```