

# VM7WC '16 #1 Bronze - A New Prime Factorization

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**Time limit:** 1.0s   **Memory limit:** 62M

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Leo was really bored after finishing all of [Project Euler](#), so he decided to create his own computational mathematics website: Project Feng! Here, he'll be able to enlighten the students of Massey with new computer science problems. For his first problem, Leo decides on something simple, but crucial:

The year has changed from 2015 to 2016. Since the current year is often used in math contest problems, it's very helpful to know its prime factorization. Leo is a very diligent math student and already knows the prime factorization of 2015. Use his information to write a program to find the prime factorization of 2016, and, to save yourself time in the future, any other year.

## Input Specification

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One line containing the integer  $Y$  ( $1 \leq Y \leq 10^9$ ), the year to prime factorize.

## Output Specification

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On every line and in increasing order, print a prime factor of  $Y$ .

## Sample Input

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2015
```

## Sample Output

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5
13
31
```