

## 11073 Euler's Totient Function

As you might know, Euler's totient function  $\phi(n)$  is defined as the number of positive integers  $a$ ,  $a \leq n$  that are relatively prime to  $n$ . Two numbers are relatively prime if their greatest common divisor is 1. If the prime factorization of  $n = p_1^{e_1} p_2^{e_2} \dots p_j^{e_j}$  is known the value of  $\phi(n)$  can be calculated via the following formula:

$$\prod_{i=1}^j (p_i - 1) p_i^{e_i - 1}$$

Now your task is to calculate the positive integers  $n$  which fulfill the equation  $\phi(n) = x$  for a given  $x$ .

### Input

The input consists of a number of lines. On each line there is a single positive integer with no leading zeros. There are no spaces in the input. All numbers will be positive integers smaller than 1000000000.

### Output

For each line of input there should be one line of output. If the equation  $\phi(n) = x$  has a solution, print all its solutions on a single line. The solutions should be printed in ascending order and should be separated by a space. If there is no solution to the equation, print: 'No solution.'

### Sample Input

```
1
3
6
```

### Sample Output

```
1 2
No solution.
7 9 14 18
```