Problem 71. Three

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Balloon color:	green

Consider the series of numbers whose all prime factors have 3 as their least (right-most) digit.

For example, the first 10 numbers in this series are: **3, 9, 13, 23, 27, 39, 43, 53, 69, 73**

The numbers **3, 13, 23, 43, 53,** and **73** are in this series since they're all primes whose least digit is a 3. Whereas 9(3 ∗ 3,) 27(3 ∗ 3 ∗ 3,) 39(3 ∗ 13,) and 69(23 ∗ 3) are in since all their prime factors have a 3 as their least digit.

Write a program that takes a list of positive integers and determines if each integer is in this series or not.

Input

The standard input contains a list of one or more positive integers, each given on a separate line. Each integer is less than a million. The last line of the standard input contains a -1 (which is not part of the list.)

Output

For each number in the standard input, write, on a separate line, the number itself followed by the word "**YES**" if the number is in the series described above, or "**NO**" if it isn't. Separate the number from the answer by a single space.

Example

Sample Input 1	Sample Output 1
3 13 33 -1	3 YES 13 YES 33 NO