

Contains Prime

We will try investigating if a number contains a prime within it.

Input

The first line contains an integer T ($1 \leq T \leq 100$) which denotes the number of test cases.

Each test case contains a single integer N ($100 \leq N \leq 1000000000$).

Output

For each test case print "YES" if its possible to choose a subsequence of length 3 of the number which is a prime else print "NO" (without quotes).

Note: Consider the given number as a string of digits. So subsequences of this number refer to the numbers that can be formed by deleting zero or more digits from the original number and concatenating the left ones.

For eg,

Subsequence of 1234 having a length 3 are,

123

124

234

134

Example

Input:

2

141

18567

Output:

NO

YES

For the second test case, we can choose the subsequences, 157, 167 etc which are prime