

You are given an integer N . Is there a permutation of digits of integer that's divisible by 8? A permutation of digits of integer N is defined as an integer formed by rearranging the digits of N . For example, if the number $N = 123$, then $\{123, 132, 213, 231, 312, 321\}$ are the possible permutations.

Input Format

The first line contains an integer T i.e. number of test cases.
 T lines follow, each containing the integer N .

Output Format

For each test case print YES if there exists one such re-arrangement of N such that it is divisible by 8 or NO if there isn't.

Constraints

$1 \leq T \leq 45$
 $0 \leq N \leq 10^{110}$

Note

Re-arrangements of 10 are {10, 01} which boils down to {10, 1}.

Sample Input

```
2
61
75
```

Sample Output

```
YES
NO
```

Explanation

Test case #00: 16 is permutation of 61 which is divisible by 8.
Test case #01: None of permutation of 75, {57, 75}, are divisible by 8.