Reach Value

Input file: standard input
Output file: standard output

Time limit: 1 second Memory limit: 256 megabytes

Given a number N. Initially you have a value equal $\mathbf{1}$ and you can perform one of the following operation any number of times:

1. Multiply your current value by 10.

2. Multiply your current value by 20.

Determine if your value can reach N or not.

Note: Solve this problem using recursion.

Input

First line contains a number T ($1 \le T \le 100$) number of test cases.

Next T lines will contain a number N $(1 \le N \le 10^{12})$.

Output

For each test case print " \mathbf{YES} " if your value can reach exactly N otherwise, print " \mathbf{NO} ".

Example

standard output
YES
NO
YES
NO
YES