

1259 - Div 4 Base 3

Description

In a Math's class, John found an algorithm to verify, when a number N is divisible by 4 in the base 3 representation. Unfortunately he notice that the algorithm just work if $N \leq 2^{64}$. Can you help John to find a better algorithm?

Input specification

The first line of the input have an integer T ($1 \leq T \leq 10000$) specifying the number of test cases. The next T lines you will have a number N (in the base 3 representation). The number of digits of N will be at the most 1 million.

Output specification

For each test case, if N is divisible by 4, print a single line with ?YES? else, print ?NO?.

Sample input

```
5
11
12
20
21
22
```

Sample output

```
YES
NO
NO
NO
YES
```

Hint(s)

Caribbean Online Judge

Source	Benny Jon Robaina
Added by	ejaltuna
Addition date	2011-10-12 04:17:38.0
Time limit (ms)	2000
Test limit (ms)	1000
Memory limit (kb)	131072
Output limit (mb)	64
Size limit (bytes)	100000
Enabled languages	C C# C++ Java Pascal Perl PHP Python Ruby Text