

Adam Number

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Given a number N, write a program to check whether given number is Adam Number or not.

Adam number is a number when reversed, the square of the number and the square of the reversed number should be numbers which are reverse of each other. Adam numbers upto 1000 are: 0, 1, 2, 3, 11, 12, 13, 21, 22, 31, 101, 102, 103, 111, 112, 113, 121, 122, 201, 202, 211, 212, 221, 301, 311.

Input:

The first line of input contains a single integer T which denotes the number of test cases. Then T test cases follows. First line of each test case contains a single integer N.

Output:

For each test case print "YES" without quotes if N is an Adam number otherwise print "NO".

Constraints:

$1 \leq T \leq 10000$

$1 \leq N \leq 10^9$

Example:

Input:

2

12

14

Output:

YES

NO