Narcissistic number

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

The following problem requires you to check whether the given number is a Narcissistic number or not. A number is narcissistic number if the sum of its own digits each raised to the power of the number of digits is equal the number itself.

Input

The first line of input contain an integer **t** denoting the number of testcases.
Each of next **t** lines has a single integer **N**.
$1 \leq \mathbf{N} \leq 10^{18}$

Output

For each input **N**, print "YES"if the number is a Narcissistic number. Otherwise, print "NO".

Example

standard input	standard output
1 153	YES

Note

You need to use recursion to solve this problem and avail full marks.

Testcase explanation:
The number 153 is a narcissistic number, because number of digits = 3, and $153 = 1^3 + 5^3 + 3^3$.