Problem L
Reverse Narcissistic Numbers
Time limit: 2 seconds

A narcissistic number is a number that is the sum of its own digits each raised to the power of the number of digits in the number. Narcissistic numbers serve no practical purpose, other than as a mathematical curiosity. For example, 371 is a narcissistic number since:

$$371 = 3^3 + 7^3 + 1^3 = 27 + 343 + 1$$

Reverse narcissistic numbers (which was made up for this problem) are somewhat less interesting and even less practical than narcissistic numbers, but a bit more of a challenge to calculate. To determine if a number n is a reverse narcissistic number, first form a new number by reversing the digits of n (dropping any resulting leading zeros). Then, calculate the sum of the reversed number's digits each raised to the power of the number of digits in n. If the sum is equal to the reversed number, then n is a reverse narcissistic number. For example, 15140 is a reverse narcissistic number:

$$4151 = 4^5 + 1^5 + 5^5 + 1^5 = 1024 + 1 + 3125 + 1$$

What is mildly interesting and somewhat obvious is that if you reverse the digits in any narcissistic number, the new number is a reverse narcissistic number.

Input

The input consists of a single line containing an integer n ($1 \leq n \leq 999\,999\,999$), which is the value to determine if it is a reverse narcissistic number.

Output

Output a single line containing `yes` if n is a reverse narcissistic number, or `no` otherwise.

Sample Input 1	Sample Output 1
100	yes

Sample Input 2	Sample Output 2
153	no

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