

Harshad Number

An Harshad Number is a natural number divisible by the sum of its digits. Your task is to write a function that takes in input a number and decide if it is an Harshad Number.

Example:

Number 24 is composed by 2 and 4, their sum is $2+4=6$

24 is divisible by 6, so it is an Harshad Number.

The first 100 Harshad Numbers are:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 18, 20, 21, 24, 27, 30, 36, 40, 42, 45, 48, 50, 54, 60, 63, 70, 72, 80, 81, 84, 90, 100.

Input

The first line contains a number N.

Output

The first line contains YES if it is an Harshad number, NO otherwise

Sample input

Sample output

24	YES
100	YES
3450	NO