

Equation



SEASON 9 – SIXTH ROUND

While scrolling through reddit in search of coronamemes, you find the following puzzle:

You have a list of N numbers. You can rearrange them in any order and must put + or - in front of every one of them. Can you make an equation with a value of 0?

Of course, you are too busy to solve such silly problems, so you give it to the poor competitors that are were forced to sift through your stupid fabulas all year long.

Input

From the first line of the input file `equation.in` N is entered. On the next line the N numbers you have to use in your equation are entered.

Output

In the output file `equation.out` print YES if possible and NO otherwise.

Constraints

$1 \leq \text{Every number on the input (including } N) \leq 500$

Time limit: 0.9 seconds

Memory limit: 256 MB

Examples

Input (<code>equation.in</code>)	Output (<code>equation.out</code>)	Example equation
3 1 2 3	YES	3-2-1 или 1+2-3
5 5 1 9 2 5	YES	9-5-1-5+2