

# Knocker

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

*I am the danger. A guy opens his door and gets shot, and you think that of me? No. I am the one who knocks!*

—Walter White, *Breaking Bad*

It's well-known that Walter is the one who knocks. But did you know that he can knock with strength  $x$  for every positive integer  $x$ ?

He has an array  $a_1, a_2, \dots, a_n$  of positive integers. If he knocks with strength  $x$ , then, for each  $1 \leq i \leq n$ ,  $a_i$  will be replaced with  $a_i \bmod x$ .

How many different arrays  $a_1, a_2, \dots, a_n$  can Walter achieve by knocking any number of times? As the number can be very large, output it modulo 998244353.

Here  $x \bmod y$  denotes the remainder of  $x$  when dividing by  $y$ . For example,  $6 \bmod 3 = 0$ , and  $6 \bmod 4 = 2$ .

## Input

The first line of the input contains a single integer  $n$  ( $1 \leq n \leq 500$ ) — the length of the array.

The second line of the input contains  $n$  integers  $a_1, a_2, \dots, a_n$  ( $1 \leq a_i \leq 500$ ) — the elements of the array.

## Output

Output a single integer — the number of different arrays Walt can achieve by knocking.

## Examples

standard input	standard output
1 5	4
2 6 5	7
5 1 2 4 8 16	69

## Note

In the first sample, you can get the following arrays:  $[5], [2], [1], [0]$ .

In the second sample, you can get the following arrays:  $[6, 5], [2, 1], [1, 0], [0, 5], [0, 2], [0, 1], [0, 0]$ .