



## Problem I. Left Equals Right

Time limit: 2 seconds  
Memory limit: 1024 megabytes

Find the number of permutations  $(P_1, \dots, P_N)$  of  $(1, \dots, N)$  that satisfy the following condition, modulo 998244353.

- There exists an integer  $i$  ( $1 \leq i < N$ ) such that  $A_{P_1} + \dots + A_{P_i} = A_{P_{i+1}} + \dots + A_{P_N}$ .

### Constraints

- $2 \leq N \leq 100$
- $1 \leq A_i \leq 100$

### Input

The input is given in the following format from standard input:

$N$   
 $A_1 A_2 \dots A_N$

### Output

Output the answer.

### Examples

standard input	standard output
3 4 9 5	4
2 100 100	2
8 3 2 6 3 1 2 4 5	11520

### Note

For the first sample case:

There are  $3! (= 6)$  permutations of  $(1, 2, 3)$ , of which 4 satisfy the condition:

- $(1, 3, 2)$
- $(2, 1, 3)$
- $(2, 3, 1)$
- $(3, 1, 2)$

For example, for  $(1, 3, 2)$ , choosing  $i = 2$ , we have  $A_1 + A_3 = A_2 = 9$ , which satisfies the condition.