

# Personal LCM

We have an integer sequence of length N:  $A_0, A_1, \dots, A_{N-1}$ .

Find the following sum ( $\text{lcm}(a, b)$  denotes the least common multiple of  $a$  and  $b$ ):

- $\sum_{i=0}^{N-2} \sum_{j=i+1}^{N-1} \text{lcm}(A_i, A_j)$

Since the answer may be enormous, compute it modulo 998244353.

## Constraints

- $1 \leq N \leq 2 * 10^5$
- $1 \leq A_i \leq 10^6$
- All values in input are integers.

## Input:

First line of input will be consist of a single N, number of elements.

In next line you will get N space seperated Integers.  $A_0 A_1 A_2 A_3 A_4 \dots A_{N-1}$

## Output:

Print the sum modulo 998244353.

## Example:

*Input:*

3

2 4 6

*Output:*

22

*Explanation:*

$$\text{lcm}(2, 4) + \text{lcm}(2, 6) + \text{lcm}(4, 6) = 4 + 6 + 12 = 22.$$