

Replace Recursively

You are given an array A

of size n

.

Find the element that is left in the array A

when the following procedure (Steps 1-3 in that order) is done until the size of A is 1.

Step 1. Find the smallest element x

in the array A and the second smallest element y

Step 2. Remove one occurrence of x

and one occurrence of y from A

Step 3. Add the element $(3 * x + 2 * y) \% 100$

to the array A

Try to the program recursively, (although this is not required and is not checked).

Input

The first line contains a single integer n

, the size of the array A The next n lines each contain a single integer denoting the elements of the array A

.

Output

Print in a single line, one integer, the answer to the problem

Constraints

$$1 \leq n \leq 100$$

$$0 \leq A_i \leq 99$$

Sample Input

5
1
2
3
4
5

Sample Output

9

Explanation

After the first iteration, 1 and 2 are removed and $(3 \cdot 1 + 2 \cdot 2) \% 100 = 7$ is added, the array has the values {3, 4, 5, 7}

After the second iteration, 3 and 4 are removed and $(3 \cdot 3 + 2 \cdot 4) \% 100 = 17$ is added, the array becomes {5, 7, 17}

After the third iteration, 5 and 7 are removed and $(3 \cdot 5 + 2 \cdot 7) \% 100 = 29$ is added, the array becomes {17, 29}

After the fourth (and last) iteration, 17 and 29 are removed and $(3 \cdot 17 + 2 \cdot 29) \% 100 = 109 \% 100 = 9$.

The final value obtained is 9.