COCI '15 Contest 3 #1 Pot

Time limit: 1.0s **Memory limit:** 64M

The teacher has sent an e-mail to her students with the following task: "Write a program that will determine and output the value of X if given the statement:

$$X = number_1^{pot_1} + number_2^{pot_2} + \cdots + number_N^{pot_N}$$

and it holds that $number_1, number_2$ to $number_N$ are integers, and pot_1, pot_2 to pot_N one-digit integers."

Unfortunately, when the teacher downloaded the task to her computer, the text formatting was lost so the task transformed into a sum of N integers:

$$X = P_1 + P_2 + \dots + P_N$$

For example, without text formatting, the original task in the form of $X=21^2+125^3$ became a task in the form of X=212+1253. Help the teacher by writing a program that will, for given N integers from P_1 to P_N determine and output the value of X from the original task.

Please note: We know that it holds $a^N = a \cdot a \cdot \cdots \cdot a$ (N times).

Input Specification

The first line of input contains the integer N ($1 \le N \le 10$), the number of the addends from the task. Each of the following N lines contains the integer P_i ($10 \le P_i \le 9\,999, i = 1\dots N$) from the task.

Output Specification

The first and only line of output must contain the value of X ($X \leq 1\,000\,000\,000$) from the original task.

Sample Input 1

2 212

1253

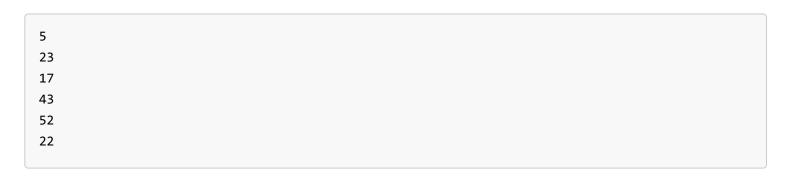
Sample Output 1

1953566

Explanation for Sample Output 1

 $21^2 + 125^3 = 441 + 1953125 = 1953566.$

Sample Input 2



Sample Output 2

102

Sample Input 3

3 213 102 45

Sample Output 3

10385