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:

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

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 $(1 \leq N \leq 10)$, the number of the addends from the task. Each of the following N lines contains the integer P_i $(10 \leq P_i \leq 9\,999, i = 1 \ldots N)$ 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

$21^2 + 125^3 = 441 + 1\,953\,125 = 1\,953\,566.$

Sample Input 2

```
5
23
17
43
52
22
```

Sample Output 2

```
102
```

Sample Input 3

```
3
213
102
45
```

Sample Output 3

```
10385
```