

Problem D. ABCDEF

Time limit	1000 ms
Mem limit	1572864 kB
Code length Limit	50000 B
OS	Linux

You are given a set S of integers between -30000 and 30000 (inclusive).

Find the total number of sextuples $(a, b, c, d, e, f) : a, b, c, d, e, f \in S; d \neq 0$ that satisfy:

$$\frac{a * b + c}{d} - e = f$$

Input

The first line contains integer N ($1 \leq N \leq 100$), the size of a set S .

Elements of S are given in the next N lines, one integer per line. Given numbers will be distinct.

Output

Output the total number of plausible sextuples.

Examples

Input:	Input:	Input:	Input:
1	2	2	3
1	2	-1	5
	3	1	7
Output:			10
1	Output:	Output:	
	4	24	Output:
			10