

ABCDEF

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:

1
1

Output:

1

Input:

2
2
3

Output:

4

Input:

2
-1
1

Output:

24

Input:

3
5
7
10

Output:

10