

Problem I. Future Coder

Input file: `standard input`
Output file: `standard output`
Time limit: 1 second
Memory limit: 1024 megabytes

Prof. Pang builds his famous coding team recently. To pursue a gold medal in ICPC, hundreds of pupils join his team. Unfortunately, one of Prof. Pang's students believes that for any integers a and b , $a \times b \geq a + b$. To disprove this proposition, Prof. Pang writes n numbers a_1, a_2, \dots, a_n on a paper and wants you to count how many pairs of numbers (a_i, a_j) ($1 \leq i < j \leq n$) satisfies $a_i \times a_j < a_i + a_j$.

Input

The first line contains a single integer T ($1 \leq T \leq 10^6$) denoting the number of test cases.

For each test case, the first line contains a single integer n ($1 \leq n \leq 10^6$). The second line contains n integers a_1, a_2, \dots, a_n ($-10^9 \leq a_i \leq 10^9$).

It is guaranteed that the sum of n over all test cases will not exceed 10^6 .

Output

For each test case, print one line containing the answer.

Example

standard input	standard output
2	19
8	0
3 -1 4 1 -5 9 2 -6	
1	
0	