
Position of the last element less than the average of even values
X16146_en

Write a program that treats a list of cases. Each case consists of a natural number $n > 0$ followed by n natural numbers x_0, x_1, \dots, x_{n-1} with at least one even value. For each case, the program has to write the position of the last sequence element that less than the average of the even elements of the sequence. If such element does not exist, the program has to write -1. Note that the first element in the sequence x_0 is at position 0, the second element x_1 is at position 1, and so on.

For example, assuming the following case:

5 10 0 5 4 9

the program has to output 3 because the average of even values in the sequence is $\frac{10+0+4}{3} = 4.6$ and the last element less than that value is 4 which is at position 3.

You **MUST** write and use the following function:

```
// Pre: --  
// Post: returns the position of the last element in v smaller than x, -1 if th  
int last_position_of(const vector<int>& v, double x)
```

Visiting unnecessary vector positions will be penalized.

Exam score: 4.00 **Automatic part:** 40.00%

Input

The input is a list of cases, each of them consisting in a natural number $n > 0$ followed by a sequence of natural numbers x_0, x_1, \dots, x_{n-1} with at least one even value.

Output

For each case, the output is the position of the last element in the sequence less than the average of even values in that sequence or -1 if that element does not exist. Note that the sequence positions start at 0.

Sample input 1

```
5 10 0 5 4 9  
5 10 0 4 9 3  
2 1 10  
3 4 4 4  
4 4 7 4 4  
6 1 0 2 1 2 3  
1 2
```

Sample output 1

```
3  
4  
0  
-1  
-1  
3  
-1
```

Sample input 2**Sample output 2**

Problem information

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