Description

Given a sorted array of integers a, find an integer x from a such that the value of

```
abs(a[0] - x) + abs(a[1] - x) + ... + abs(a[a.length - 1] - x)
```

is the smallest possible (here abs denotes the absolute value). If there are several possible answers, output the smallest one.

Example

For a = [2, 4, 7], the output should be absoluteValuesSumMinimization(a) = 4.

For a = [2, 4, 7, 6], the output should be absoluteValuesSumMinimization(a) = 4.

For a = [2, 4, 7, 6, 6], the output should be absoluteValuesSumMinimization(a) = 7.

For a = [2, 4, 7, 6, 6, 8], the output should be absoluteValuesSumMinimization(a) = 7.

Hints

- Math.floor()

Input/Output

- **[time limit] 4000ms (js)**
- **[input] array.integer a**

A non-empty array of integers, sorted in ascending order.

Guaranteed constraints:

1 ≤ a.length ≤ 200,

-106 ≤ a[i] ≤ 106.

- **[output] integer**