9m left

1. Find the Median

 \mathbb{H}

ALL

The median of a list of numbers is essentially its middle element after sorting. The same number of elements occur after it as before. Given a list of numbers with an odd number of elements, find the <u>median</u>?

Example

(i)

 $\mathit{arr} = [5,3,1,2,4]$

The sorted array arr' = [1, 2, 3, 4, 5]. The middle element and the median is 3.

Function Description

1 Complete the *findMedian* function in the editor below.

findMedian has the following parameter(s):

• int arr[n]: an unsorted array of integers

Returns

• int: the median of the array

Input Format

The first line contains the integer n, the size of arr.

The second line contains n space-separated integers arr[i]

Constraints

- $1 \le n \le 1000001$
- **n** is odd
- $\bullet \ \ -10000 \leq arr[i] \leq 10000$

Sample Input 0

0 1 2 4 6 5 3

Sample Output 0

3

Explanation 0

The sorted arr = [0, 1, 2, 3, 4, 5, 6]. It's middle element is at arr[3] = 3.