BACK

Is Smooth?

DESCRIPTION SOLUTIONS 8211 COMMENTS 5 CODEWRITING SCORE: 300/300

We define the *middle* of the array `arr` as follows:

- if `arr` contains an odd number of elements, its *middle* is the element whose index number is the same when counting from the beginning of the array and from its end;
- if `arr` contains an even number of elements, its *middle* is the sum of the two elements whose index numbers when counting from the beginning and from the end of the array differ by one.

An array is called *smooth* if its first and its last elements are equal to one another and to the *middle*. Given an array `arr`, determine if it is *smooth* or not.

Example

- For `arr = [7, 2, 2, 5, 10, 7]`, the output should be `isSmooth(arr) = true`.

  The first and the last elements of `arr` are equal to `7`, and its *middle* also equals `2 + 5 = 7`. Thus, the array is *smooth* and the output is `true`.

- For `arr = [-5, -5, 10]`, the output should be `isSmooth(arr) = false`.

  The first and *middle* elements are equal to `-5`, but the last element equals `10`. Thus, `arr` is not *smooth* and the output is `false`.

Input/Output

- **[execution time limit] 4 seconds (js)**
- **[input] array.integer arr**

  The given array.

  Guaranteed constraints:
  $2 \le arr.length \le 10^5$,
  $-10^9 \le arr[i] \le 10^9$.

- **[output] boolean**

  `true` if `arr` is *smooth*, `false` otherwise.