

# 823. Split Array With Same Average

## Difficulty : Hard

<https://leetcode.com/problems/split-array-with-same-average>

You are given an integer array `nums`.

You should move each element of `nums` into one of the two arrays `A` and `B` such that `A` and `B` are non-empty, and `average(A) == average(B)`.

Return `true` if it is possible to achieve that and `false` otherwise.

**Note** that for an array `arr`, `average(arr)` is the sum of all the elements of `arr` over the length of `arr`.

### Example 1:

**Input:** `nums = [1,2,3,4,5,6,7,8]`

**Output:** `true`

**Explanation:** We can split the array into `[1,4,5,8]` and `[2,3,6,7]`, and both of them have an average of 4.5.

### Example 2:

**Input:** `nums = [3,1]`

**Output:** `false`

### Constraints:

- $1 \leq \text{nums.length} \leq 30$
- $0 \leq \text{nums}[i] \leq 10^4$