

## 724. Find Pivot Index

Solved

Easy Topics Companies Hint

Given an array of integers `nums`, calculate the **pivot index** of this array.The **pivot index** is the index where the sum of all the numbers **strictly** to the left of the index is equal to the sum of all the numbers **strictly** to the index's right.

If the index is on the left edge of the array, then the left sum is 0 because there are no elements to the left. This also applies to the right edge of the array.

Return the **leftmost pivot index**. If no such index exists, return `-1`.

Example 1:

Input: `nums = [1, 7, 3, 6, 5, 6]`Output: `3`

Explanation:

The pivot index is 3.

Left sum = `nums[0] + nums[1] + nums[2] = 1 + 7 + 3 = 11`Right sum = `nums[4] + nums[5] = 5 + 6 = 11`

Example 2:

Input: `nums = [1, 2, 3]`Output: `-1`

Explanation:

There is no index that satisfies the conditions in the problem statement.

Example 3:

Input: `nums = [2, 1, -1]`Output: `0`

Explanation:

The pivot index is 0.

Left sum = 0 (no elements to the left of index 0)

Right sum = `nums[1] + nums[2] = 1 + -1 = 0`Pivot Index

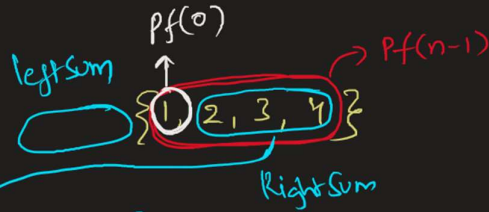
\* Sum of all elements before  $i$ th idx = Sum of all elements after  $i$ th idx

\* Algo

① calculate prefix sum array

② if ( $i=0$ )

↳ check  $\{ Pf(n-1) - Pf(0) == 0 \}$   
if true  $\rightarrow$  add 1

③ if ( $i=n-1$ )

↳ check  $\{ Pf(n-2) == 0 \}$

if true  $\rightarrow$  add 1④ Iterate from  $(1 \rightarrow n-2)$ 

check  $\{ if (Pf(i-1) == Pf(n-1) - Pf(i)) \rightarrow$

if true  $\rightarrow$  add 1