

Get Maximum Sum Arr (Fungible :)

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At Amazon, the team at the fulfillment center is responsible for the packaging process. There is an array, `item_weights`, of `n` items to pack. The team needs to create a new array, `new_arr`, by removing exactly $n/3$ items from `item_weights` without changing the order of those remaining.

- The `sum_arr` of array `new_arr` is defined as the sum of the weights or elements in the first half of the array minus the sum of the weights in the second half of the array. - Given `n` items and an array `item_weights`, find the maximum `sum_arr` possible.

Function Description

Complete the function `getMaxSumArr` in the editor below.

`getMaxSumArr` has the following parameters:

`int item_weights[n]`: item weights

Returns

`int`: the maximum possible `sum_arr`

Example 1:

Input: `item_weights = [3, 2, 1]`

Output: 2

Explanation:

array <i>item_weights</i>	Removing element	array <i>new_arr</i>	<i>sum_arr(new_arr)</i>
[3, 2, 1]	index 2 (1- based)	[3, 1]	3 - 1 = 2
[3, 2, 1]	index 1 (1- based)	[2, 1]	2 - 1 = 1
[3, 2, 1]	index 3 (1- based)	[3, 2]	3 - 2 = 1

sum_arr = 2, which is the maximum possible.

Example 2:

Input: `item_weights = [1, 3, 4, 7, 5, 2]`

Output: 4

Explanation:

Given `n = 6`, `item_weights=[1, 3, 4, 7, 5, 2]`, remove the elements 1, 3 to leave `new_arr=[4, 7, 5, 2]`, hence the sum will be $(4+7)-(5+2) = 4$.

Constraints:

- $3 \leq N \leq 10^5$
- $-10^4 \leq \text{item_weights}[i] \leq 10^4$
- `n` is divisible by 3

Problem Source

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```
1
2 class Solution:
3     def getMaxSumArr(self, item_weights: List[int]) -> int:
4
```

Testcase

Result

Case 1

Case 2

+

item_weights:

[3, 2, 1]

output:

2

Submit