

# 1573. Find Two Non-overlapping Sub-arrays Each With Target Sum

## Difficulty : Medium

<https://leetcode.com/problems/find-two-non-overlapping-sub-arrays-each-with-target-sum>

You are given an array of integers `arr` and an integer `target`.

You have to find **two non-overlapping sub-arrays** of `arr` each with a sum equal `target`. There can be multiple answers so you have to find an answer where the sum of the lengths of the two sub-arrays is **minimum**.

Return *the minimum sum of the lengths* of the two required sub-arrays, or return -1 if you cannot find such two sub-arrays.

### Example 1:

**Input:** `arr = [3,2,2,4,3]`, `target = 3`

**Output:** 2

**Explanation:** Only two sub-arrays have sum = 3 ([3] and [3]). The sum of their lengths is 2.

### Example 2:

**Input:** `arr = [7,3,4,7]`, `target = 7`

**Output:** 2

**Explanation:** Although we have three non-overlapping sub-arrays of sum = 7 ([7], [3,4] and [7]), but we will choose the first and third sub-arrays as the sum of their lengths is 2.

### Example 3:

**Input:** `arr = [4,3,2,6,2,3,4]`, `target = 6`

**Output:** -1

**Explanation:** We have only one sub-array of sum = 6.

### Constraints:

- $1 \leq \text{arr.length} \leq 10^5$
- $1 \leq \text{arr}[i] \leq 1000$
- $1 \leq \text{target} \leq 10^8$