

# Problem 1354: Construct Target Array With Multiple Sums

## Problem Information

**Difficulty:** Hard

**Acceptance Rate:** 36.41%

**Paid Only:** No

**Tags:** Array, Heap (Priority Queue)

## Problem Description

You are given an array `target` of  $n$  integers. From a starting array `arr` consisting of  $n$  1's, you may perform the following procedure :

\* let  $x$  be the sum of all elements currently in your array. \* choose index  $i$ , such that  $0 \leq i < n$  and set the value of `arr` at index  $i$  to  $x$ . \* You may repeat this procedure as many times as needed.

Return `true` \_if it is possible to construct the\_ `target` \_array from\_ `arr` \_, otherwise, return\_ `false` .

**Example 1:**

**Input:** target = [9,3,5] **Output:** true **Explanation:** Start with arr = [1, 1, 1] [1, 1, 1], sum = 3 choose index 1 [1, 3, 1], sum = 5 choose index 2 [1, 3, 5], sum = 9 choose index 0 [9, 3, 5] Done

**Example 2:**

**Input:** target = [1,1,1,2] **Output:** false **Explanation:** Impossible to create target array from [1,1,1,1].

**Example 3:**

**Input:** target = [8,5] **Output:** true

**\*\*Constraints:\*\***

`* `n == target.length` * `1 <= n <= 5 * 104` * `1 <= target[i] <= 109``

## Code Snippets

### C++:

```
class Solution {  
public:  
    bool isPossible(vector<int>& target) {  
  
    }  
};
```

### Java:

```
class Solution {  
public boolean isPossible(int[] target) {  
  
}  
}
```

### Python3:

```
class Solution:  
    def isPossible(self, target: List[int]) -> bool:
```