

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:
```