

Array #8

Leetcode #1346 ✓

Check if N and its Double Exist ✓

<https://leetcode.com/problems/check-if-n-and-its-double-exist/description/> ✓

Given an array `arr` of integers, check if there exist two indices `i` and `j` such that:

- $i \neq j$ ✓
- $0 \leq i, j < \text{arr.length}$ ✓
- $\text{arr}[i] == 2 * \text{arr}[j]$ ✓

Example 1:

Input: `arr = [10, 2, 5, 3]`

Output: true

Example 2:

Input: `arr = [3, 1, 7, 11]`

Output: false ✓

Constraints:

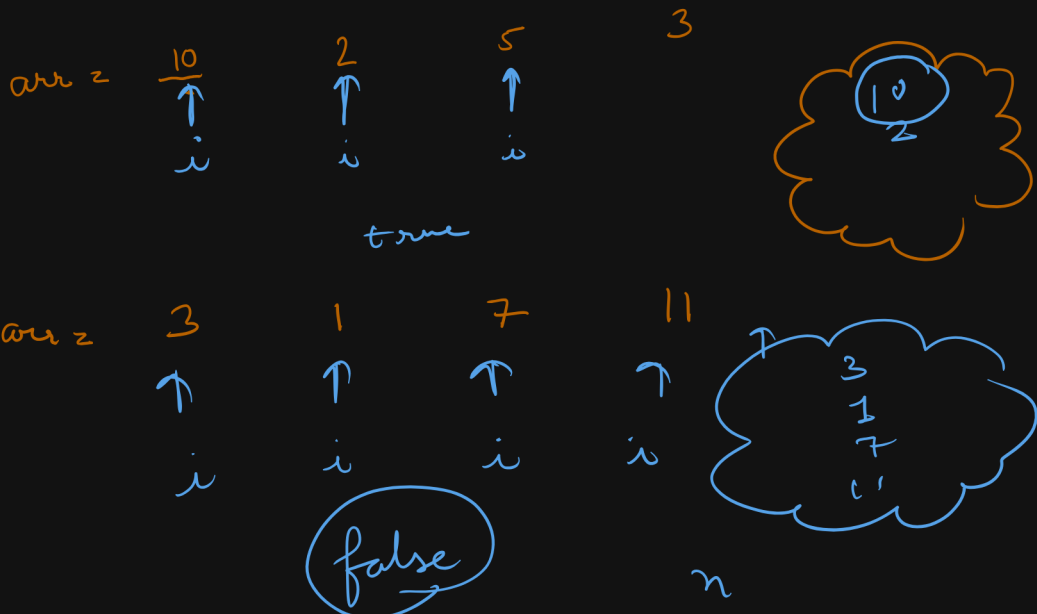
$2 \leq \text{arr.length} \leq 500$ ✓

$-10^3 \leq \text{arr}[i] \leq 10^3$ ✓

Companies:

Amazon, Google ✓

Approach:



Time complexity:

$O(N)$ ✓

Space complexity:

$O(N)$ ✓

```
class Solution {  
    public boolean checkIfExist(int[] arr) {  
        Set<Integer> set = new HashSet<>();  
  
        for (int num : arr) {  
            if (set.contains(2 * num) || (set.contains(num / 2) && (num % 2 == 0))) {  
                return true;  
            }  
  
            set.add(num);  
        }  
  
        return false;  
    }  
}
```