

LeetCode

Explore

Problems

Interview

Contest

Discuss

Store

LeetCode is hiring! Apply NOW.

Description

Solution

Discuss (305)

Submissions

i

Java

Autocomplete

i

{ }

↶

↷

↺

365. Water and Jug Problem

Medium 736 1095 Add to List Share

You are given two jugs with capacities `jug1Capacity` and `jug2Capacity` liters. There is an infinite amount of water supply available. Determine whether it is possible to measure exactly `targetCapacity` liters using these two jugs.

If `targetCapacity` liters of water are measurable, you must have `targetCapacity` liters of water contained **within one or both buckets** by the end.

Operations allowed:

- Fill any of the jugs with water.
- Empty any of the jugs.
- Pour water from one jug into another till the other jug is completely full, or the first jug itself is empty.

Example 1:

Input: `jug1Capacity = 3, jug2Capacity = 5, targetCapacity = 4`

Output: `true`

Explanation: The famous Die Hard example

Example 2:

Input: `jug1Capacity = 2, jug2Capacity = 6, targetCapacity = 5`

Output: `false`

Example 3:

Input: `jug1Capacity = 1, jug2Capacity = 2, targetCapacity = 3`

Output: `true`

Constraints:

- `1 <= jug1Capacity, jug2Capacity, targetCapacity <= 106`

Accepted 60,392 Submissions 176,856

Seen this question in a real interview before?

Yes

No

Companies *i*

Related Topics

1

2

3

4

5

```
class Solution {
    public boolean canMeasureWater(int jug1Capacity, int jug2Capacity, int targetCapacity) {
    }
}
```

⌵ Problems

⌵ Pick One

< Prev 365/2214 Next >

Console ⌵ Contribute *i*

▶ Run Code ^

Submit

https://leetcode.com/problems/water-and-jug-problem/

1/1