

365. Water and Jug Problem

Description

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`

