## 473. Matchsticks to Square

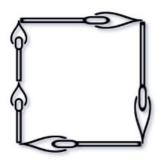
# **Difficulty: Medium**

## https://leetcode.com/problems/matchsticks-to-square

You are given an integer array matchsticks where matchsticks[i] is the length of the i<sup>th</sup> matchstick. You want to use **all the matchsticks** to make one square. You **should not break** any stick, but you can link them up, and each matchstick must be used **exactly one time**.

Return true if you can make this square and false otherwise.

## Example 1:



**Input:** matchsticks = [1,1,2,2,2]

**Output:** true

Explanation: You can form a square with length 2, one side of the square came two sticks with length 1.

## Example 2:

**Input:** matchsticks = [3,3,3,3,4]

Output: false

 $\textbf{Explanation:} \ \ \text{You cannot find a way to form a square with all the match sticks.}$ 

#### **Constraints:**

- 1 <= matchsticks.length <= 15
- 1 <= matchsticks[i] <=  $10^8$