An integer array original is transformed into a **doubled** array changed by appending **twice the value** of every element in original, and then randomly **shuffling** the resulting array.

Given an array changed, return original*if*changed*is a****doubled****array. If*changed*is not a****doubled****array, return an empty array. The elements in* original *may be returned in****any****order*.

**Example 1:**

**Input:** changed = [1,3,4,2,6,8]

**Output:** [1,3,4]

**Explanation:** One possible original array could be [1,3,4]:

- Twice the value of 1 is 1 \* 2 = 2.

- Twice the value of 3 is 3 \* 2 = 6.

- Twice the value of 4 is 4 \* 2 = 8.

Other original arrays could be [4,3,1] or [3,1,4].

**Example 2:**

**Input:** changed = [6,3,0,1]

**Output:** []

**Explanation:** changed is not a doubled array.

**Example 3:**

**Input:** changed = [1]

**Output:** []

**Explanation:** changed is not a doubled array.

**Constraints:**

* 1 <= changed.length <= 105
* 0 <= changed[i] <= 105