

# 2007. Find Original Array From Doubled Array

## Description

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:

- $1 \leq \text{changed.length} \leq 10^5$
- $0 \leq \text{changed}[i] \leq 10^5$

