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# 5998. Maximum Split of Positive Even Integers

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You are given an integer finalSum. Split it into a sum of a maximum number of unique positive even integers.

• For example, given finalSum = 12, the following splits are valid (unique positive even integers summing up to finalSum): (2 + 10), (2 + 4 + 6), and (4 + 8). Among them, (2 + 4 + 6) contains the maximum number of integers. Note that finalSum cannot be split into (2 + 2 + 4 + 4) as all the numbers should be unique.

Return a list of integers that represent a valid split containing a maximum number of integers. If no valid split exists for finalSum, return an empty list. You may return the integers in any order.

Difficulty:	Medium
Total Submissions:	0
Total Accepted:	0
User Tried:	0
User Accepted:	0

## Example 1:

```
Input: finalSum = 12
Output: [2,4,6]
Explanation: The following are some valid splits: (2 + 10), (2 + 4 + 6), and (4 + 8).
(2 + 4 + 6) has the maximum number of integers, which is 3. Thus, we return [2,4,6].
Note that [2,6,4], [6,2,4], etc. are also accepted.
```

# Example 2:

```
Input: finalSum = 7
Output: []
Explanation: There are no valid splits for the given finalSum.
Thus, we return an empty array.
```

#### Example 3:

```
Input: finalSum = 28
Output: [6,8,2,12]
Explanation: The following are some valid splits: (2 + 26), (6 + 8 + 2 + 12), and (4 + 24).
(6 + 8 + 2 + 12) has the maximum number of integers, which is 4. Thus, we return [6,8,2,12].
Note that [10,2,4,12], [6,2,4,16], etc. are also accepted.
```

## **Constraints:**

• 1 <= finalSum <= 10<sup>10</sup>

```
C
C++
1 v class Solution {
2
   public:
3
        vector<long long> maximumEvenSplit(long long finalSum) {
 4
 5
 6
   };
```