**InfyTQ SET 001**

Solved Challenges **4/5**

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## Integer Equals Previous Two - Combination

**ID:9396** **Solved By 101 Users**

An array of integers **ARR** is passed as the input to the program. The program must find and print the combination of sequence of integers which satisfy the below condition:
- The $i^{th}$ integer must satisfy the condition ARR[i] = ARR[i-1]+ARR[i-2]
- The program must print the sequence containing the maximum count of integers.
- If there are more than one sequence satisfying above conditions then print the sequence that contains smaller integer values.
- In case there is no such sequence print -1 as the output.

**Boundary Condition(s):**
3 <= Size of the array ARR <= 15

**Input Format:**
The first line contains a list of integers separated by a space.

**Output Format:**
The first line contains a list of integers separated by a space or -1.

**Example Input/Output 1:**
Input:
5 2 3 8 4 19 22 11 44

Output:
2 3 5 8

Explanation:
2 3 5 8 and 3 8 11 19 both have 4 integers in them.
But as 2 3 5 8 has the smaller integer values (sum of integers in 2 3 5 8 is less than the sum of integers in 3 8 11 19), 2 3 5 8 is printed as the output.

**Example Input/Output 2:**
Input:
1 7 10 19 22 100

Output:
-1

**Example Input/Output 3:**
Input:
5 2 3 8 4 19 22 11 44 30 88 59 49

Output:
3 8 11 19 30 49

**Max Execution Time Limit: 1000 millisecs**

Ambiance

Python3 (3.x )

Reset

```
arr = list(map(int,input().strip().split()))

arr.sort()
temp=[]
ans=[]
maxi=-1
cond =sum(arr)

for i in range(len(arr)-1):
    for j in range(i+1,len(arr)):
        temp = []
        prev = i
        temp.append(arr[prev])
        while(j<len(arr)):
            summ = arr[prev]+arr[j]
            if(summ in arr):
                temp.append(arr[j])
                prev = j
                j = arr.index(summ)
            else:
                temp.append(arr[j])
                break
        # print(temp)
        if(len(temp)>maxi):
            maxi = len(temp)
            cond = sum(temp)
            ans = temp
        elif(len(temp)==maxi and sum(temp)<cond):
            cond = sum(temp)
            ans = temp


if(len(ans)==2):
    print("-1")
else:
    for num in ans:
        print(num,end=" ")
```

**Code did not pass the execution**

**TestCase ID: 44390**

**Input:**

```
5 2 3 8 4 19 22 11 44
```

**Expected Output:**

```
2 3 5 8
```

**Your Program Output:**

```
3 8 11 19
```

Save Run

Run with a custom test case (Input/Output)