

Maximum Common Difference Element in the Right

Given a collection of ‘n’ integers, write a C++ program to find the difference between the elements to the right that has occurred maximum number of times. Print the elements with the maximum common difference in ascending order. For example, given six numbers, 28, 32, 36, 38, 34 and 30 then the numbers and the difference with the numbers in their right are

28 - 4 8 10 6 2

32 - 4 6 2 2

36 - 2 2 6

38 - 4 8

34 - 4

common difference that occurs maximum number of times in distinct elements is 4 and the elements are 28 32 34 38 in ascending order.

Hint:

This problem can be easily solved with containers such as list, vector in STL and sort, find algorithms in STL

Input Format

First line contains the number of elements, n

Next line contains the ‘n’ elements separated by a space

Output Format

Print the common difference that has occurred maximum number of times, m

Next line print the elements that have got the difference ‘m’ with the elements in the right, separated by a space

Problem Statistics

Author: M Janaki Meena

Solved By: 0

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Theme:

Terminal

 Language

Python

 Font size:

18

```
1
2 n = int(input())
3 l = list(map(int,input().split()))
4 diff = {}
5 diff_values = []
6 for i in range(n-1):
7     for j in range(i+1,n):
8         d = abs(l[i]-l[j])
9         if l[i] not in diff:
10             diff[l[i]]=[]
11         else:
12             diff[l[i]].append(d)
13     diff_values.extend(set(diff[l[i]]))
14 max_count = 0
15 common_diff = 0
16 for val in diff_values:
17     if diff_values.count(val)>max_count:
18         max_count = diff_values.count(val)
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☐ Use custom I/O

Run Code

Save Code

Pause Test

Status:

Success your code has passed all test cases!!