

REC-PS

SUSHMITHA SREE S 2022-BIOMED-B S2

Answer: (penalty regime: 0 %)

```
1 n = int(input().strip())
2 A = list(map(int, input().strip().split()))
3
4
5 peaks = [A[i] for i in range(n) if (i == 0 and A[i] >= A[i + 1]) or
6                                     (i == n - 1 and A[i] >= A[i - 1]) or
7                                     (0 < i < n - 1 and A[i] >= A[i - 1] and A[i] >= A[i + 1]))
8
9 print(" ".join(map(str, peaks)))
10
```

	Input	Expected	Got	
✓	7 15 7 10 8 9 4 6	15 10 9 6	15 10 9 6	✓
✓	4 12 3 6 8	12 8	12 8	✓

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	Input	Expected	Got	
✓	6 3 4 8 7 1 2	1 2 3 4 7 8	1 2 3 4 7 8	✓
✓	6 9 18 1 3 4 6	1 3 4 6 9 18	1 3 4 6 9 18	✓
✓	5 4 5 2 3 1	1 2 3 4 5	1 2 3 4 5	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5
Correct
Mark 1.00 out of 1.00
Flag question

Given an list, find peak element in it. A peak element is an element that is greater than its neighbors.

An element $a[i]$ is a peak element if

$A[i-1] \leq A[i] \geq A[i+1]$ for middle elements. $[0 < i < n-1]$

$A[i-1] \leq A[i]$ for last element $[i=n-1]$

$A[i] \geq A[i+1]$ for first element $[i=0]$

Input Format

The first line contains a single integer n , the length of A .

The second line contains n space-separated integers $A[i]$.

Output Format

Print peak numbers separated by space.

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Flag question

Output Format: The output should be a sorted list.

For example:

Input	Result
6 3 4 8 7 1 2	1 2 3 4 7 8
5 4 5 2 3 1	1 2 3 4 5

Answer: (penalty regime: 0 %)

```
1 def bubble_sort(arr):
2     n = len(arr)
3     for i in range(n):
4         for j in range(0, n-i-1):
5             if arr[j] > arr[j+1]:
6                 arr[j], arr[j+1] = arr[j+1], arr[j]
7 n = int(input())
8 arr = list(map(int, input().split()))
9 bubble_sort(arr)
10 print(' '.join(map(str, arr)))
```

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	Input	Expected	Got	
✓	5 6 5 4 3 8	3 4 5 6 8	3 4 5 6 8	✓
✓	9 14 46 43 27 57 41 45 21 70	14 21 27 41 43 45 46 57 70	14 21 27 41 43 45 46 57 70	✓
✓	4 86 43 23 49	23 43 49 86	23 43 49 86	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question 4
Correct
Mark 1.00 out of 1.00
Flag question

Bubble Sort is the simplest **sorting** algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order. You read an **list** of numbers. You need to arrange the elements in ascending order and print the result. The **sorting** should be done using bubble sort.

Input Format: The first line reads the number of elements in the array. The second line reads the array elements one by one.

Output Format: The output should be a sorted list.

For example:

Input	Result
-------	--------

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Question 3
Correct
Mark 1.00 out of 1.00
Flag question

Write a Python program to sort a list of elements using the merge sort algorithm.

For example:

Input	Result
5 6 5 4 3 8	3 4 5 6 8

Answer: (penalty regime: 0 %)

```
1. def merge_sort(arr):
2.     if len(arr) <= 1:
3.         return arr
4.     mid = len(arr)//2
5.     l = arr[:mid]
6.     r = arr[mid:]
7.     l = merge_sort(l)
8.     r = merge_sort(r)
9.     return merge(l,r)
10. def merge(left, right):
11.     merged = []
12.     li, ri = 0, 0
13.     while li < len(left) and ri < len(right):
14.         if left[li] < right[ri]:
15.             merged.append(left[li])
16.             li += 1
17.         else:
18.             merged.append(right[ri])
19.             ri += 1
20.     merged.extend(left[li:])
21.     merged.extend(right[ri:])
22.     return merged
23. n = int(input())
24. arr = list(map(int, input().split()))
25. sorted_arr = merge_sort(arr)
```

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Answer: (penalty regime: 0 %)

```
1. def pair(arr, k):
2.     seen = set()
3.     for num in arr:
4.         complement = k - num
5.         if complement in seen:
6.             return True
7.         seen.add(num)
8.     return False
9. n = int(input())
10. arr = list(map(int, input().split()))
11. k = int(input())
12. if pair(arr, k):
13.     print("Yes")
14. else:
15.     print("No")
```

	Input	Expected	Got	
✓	5 8 9 12 15 3 11	Yes	Yes	✓
✓	6 2 9 21 32 43 43 1 4	No	No	✓

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Question 2
Correct
Mark 1.00 out of 1.00
Flag question

An list contains N numbers and you want to determine whether two of the numbers sum to a given number K. For example, if the input is 8, 4, 1, 6 and K is 10, the answer is yes (4 and 6). A number may be used twice.

Input Format

The first line contains a single integer n , the length of list
The second line contains n space-separated integers, list[i].
The third line contains integer k.

Output Format

Print Yes or No.

Sample Input

7
0 1 2 4 6 5 3
1

Sample Output

Yes

For example:

Input	Result
5	Yes
8 9 12 15 3	

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Answer: (penalty regime: 0 %)

```
1 def binary_search(arr,x):  
2     low = 0  
3     high = len(arr)-1  
4     while low <= high:  
5         mid = (low+high)//2  
6         if arr[mid] < x:  
7             low = mid+1  
8         elif arr[mid]>x:  
9             high = mid-1  
10        else:  
11            return True  
12    return False  
13 e = list(map(int, input().split(",")))  
14 ef = int(input())  
15 e.sort()  
16 f = binary_search(e,ef)  
17 print(f)
```

	Input	Expected	Got	
✓	1,2,3,5,8 6	False	False	✓
✓	3,5,9,45,42 42	True	True	✓
✓	52,45,89,43,11 11	True	True	✓

Book_28_Apr_2024[1].pdf

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UNIT IV- Correlation and S

Unit III- Random Process

Week10_Coding Attempt

sushmitha011/sushmitha

Not secure rajalakshmicolleges.org/moodle/mod/quiz/review.php?attempt=160508&cmid=116

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GE19211 / GE23233 / GE23231 - PSPP/PUP

Dashboard / My courses / PSPP/PUP / Searching techniques: Linear and Binary / Week10_Coding

Quiz navigation

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Show one page at a time

Finish review

Started on

Saturday, 25 May 2024, 4:49 PM

State

Finished

Completed on

Sunday, 26 May 2024, 12:11 AM

Time taken

7 hours 21 mins

Marks

5.00/5.00

Grade

100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Flag question

Write a Python program for binary search.

For example:

Input	Result
1,2,3,5,8 6	False
3,5,9,45,42 42	True

Answer: (penalty regime: 0 %)

1

def binary_search(arr,x):

2

low = 0

3

high = len(arr)-1

Search

ENG IN

21:10 19-06-2024