

## WEEK 13

### Explanation 1

- The first and last elements are equal to 1.
- Using zero based indexing, arr[1]=2 is the pivot between the two subarrays.
- The index of the pivot is 1.

**Answer:** (penalty regime: 0 %)

Reset answer

```
1  /*
2   * Complete the 'balancedSum' function below.
3   *
4   * The function is expected to return an INTEGER.
5   * The function accepts INTEGER_ARRAY arr as parameter.
6   */
7
8  int balancedSum(int arr_count, int* arr)
9  {
10     int ls=0;
11     for(int i=0;i<arr_count;i++){
12         ls+=arr[i];
13         for(int j=arr_count;j>arr_count/2;j--){
14             if(ls==arr[j]) return arr_count-(i+1);
15         }
16     }
17     return -1;
18 }
19
```

	Test	Expected	Got	
✓	int arr[] = {1,2,3,3};	2	2	✓

### Sample Output 1

24

### Explanation 1

12 + 12 = 24.

**Answer:** (penalty regime: 0 %)

Reset answer

```
1  /*
2  * Complete the 'arraySum' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER_ARRAY numbers as parameter.
6  */
7
8  int arraySum(int numbers_count, int *numbers)
9  {
10     int sum=0;
11     for(int i=0;i<numbers_count;i++){
12         sum+=numbers[i];
13     }
14     return sum;
15 }
16
```

	Test	Expected	Got	
✓	int arr[] = {1, 2, 3, 4, 5};	15	15	✓

differences of adjacent elements Constraints  $2 \leq n \leq 105$   $0 \leq arr[i] \leq 109$ , where  $0 \leq i < n$  Input Format For Custom Testing The first line of input contains an integer, n, the size of arr. Each of the following n lines contains an integer that describes arr[i] (where  $0 \leq i < n$ ). Sample Case 0 Sample Input For Custom Testing STDIN Function ----- 5 → arr[] size n = 5 5 → arr[] = [5, 1, 3, 7, 3] 1 3 7 3 Sample Output 6 Explanation n = 5 arr = [5, 1, 3, 7, 3] If arr is rearranged as arr' = [1, 3, 3, 5, 7], the differences are minimized. The final answer is  $|1 - 3| + |3 - 3| + |3 - 5| + |5 - 7| = 6$ . Sample Case 1 Sample Input For Custom Testing STDIN Function ----- 2 → arr[] size n = 2 3 → arr[] = [3, 2] 2 Sample Output 1 Explanation n = 2 arr = [3, 2] There is no need to rearrange because there are only two elements. The final answer is  $|3 - 2| = 1$ .

**Answer:** (penalty regime: 0 %)

Reset answer

```

1  /*
2  * Complete the 'minDiff' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER_ARRAY arr as parameter.
6  */
7
8  int minDiff(int arr_count, int* arr)
9  {
10     int sum=0;
11     for(int i=0;i<arr_count;i++){
12         for(int j=i+1;j<arr_count;j++){
13             if(arr[i]>arr[j]){
14                 int temp=arr[i];
15                 arr[i]=arr[j];
16                 arr[j]=temp;
17             }
18         }
19     }
20     for(int i=0;i<arr_count-1;i++){
21         if(arr[i]<arr[i+1]) sum+=(arr[i+1]-arr[i]);
22         else sum+=(arr[i]-arr[i+1]);
23     }
24     return sum;
25 }
26

```

	Test	Expected	Got	
✓	int arr[] = {5, 1, 3, 7, 3};	6	6	✓