

# GE23131-Programming Using C-2024

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Question 1

Correct

Marked out of 1.00

Flag question

|           |                                       |
|-----------|---------------------------------------|
| Status    | Finished                              |
| Started   | Wednesday, 25 December 2024, 10:22 AM |
| Completed | Wednesday, 25 December 2024, 11:05 AM |
| Duration  | 42 mins 51 secs                       |

Given an array of numbers and a window of size k. Print the maximum of numbers inside the window for each step as the window moves from the beginning of the array.

Input Format

Input contains the array size, no of elements and the window size

Output Format

Print the maximum of numbers

Constraints

1 <= size <= 1000

Sample Input 1

8  
1 3 5 2 1 8 6 9  
3

Sample Output 1

5 5 5 8 8 9

For example:

| Input                          | Result          |
|--------------------------------|-----------------|
| 8<br>1 3 5 2 1 8 6 9<br>3      | 5 5 5 8 8 9     |
| 10<br>3 7 5 1 2 9 8 5 3 2<br>3 | 7 7 5 9 9 9 8 5 |

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n,k;
5     scanf("%d",&n);
6     int arr[n];
7     for(int i=0;i<n;i++)
8     {
9         scanf("%d",&arr[i]);
10    }scanf("%d",&k);
11    for(int a=0;a<=n-k;a++){
12        int max = arr[a];
13        for(int b = a;b<a+k;b++){
14            if(arr[b]>max)
15            {
16                max = arr[b];
17            }
18        }
19        printf("%d ",max);
20    }
21 }
```

|   | Input                          | Expected        | Got             |   |
|---|--------------------------------|-----------------|-----------------|---|
| ✓ | 8<br>1 3 5 2 1 8 6 9<br>3      | 5 5 5 8 8 9     | 5 5 5 8 8 9     | ✓ |
| ✓ | 10<br>3 7 5 1 2 9 8 5 3 2<br>3 | 7 7 5 9 9 9 8 5 | 7 7 5 9 9 9 8 5 | ✓ |

Passed all tests! ✓

Question 2

Correct

Marked out of 1.00

Flag question

Given an array and a threshold value find the output.

Input: {5,8,10,13,6,2}

Threshold = 3

Output count = 17

Explanation:

| Number | Parts       | Counts |
|--------|-------------|--------|
| 5      | {3,2}       | 2      |
| 8      | {3,3,2}     | 3      |
| 10     | {3,3,3,1}   | 4      |
| 13     | {3,3,3,3,1} | 5      |
| 6      | {3,3}       | 2      |
| 2      | {2}         | 1      |

Input Format

N - no of elements in an array

Array of elements

Threshold value

Output Format

Display the count

Sample Input 1

6

5 8 10 13 6 2

3

Sample Output 1

17

For example:

| Input                           | Result |
|---------------------------------|--------|
| 6<br>5 8 10 13 6 2<br>3         | 17     |
| 7<br>20 35 57 30 56 87 30<br>10 | 33     |

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n,t,count=0;
5     scanf("%d",&n);
6     int arr[n];
7     for(int i=0;i<n;i++)
8     {
9         scanf("%d",&arr[i]);
10
11     }scanf("%d",&t);
12     for(int j=0;j<n;j++)
13     {
14         while(arr[j]>0)
15         {
16             arr[j]-=t;
17             count++;
18         }
19     }printf("%d",count);
20 }
```


|   | Input                           | Expected | Got |   |
|---|---------------------------------|----------|-----|---|
| ✓ | 6<br>5 8 10 13 6 2<br>3         | 17       | 17  | ✓ |
| ✓ | 7<br>20 35 57 30 56 87 30<br>10 | 33       | 33  | ✓ |

Passed all tests! ✓

Question **3**

Correct

Marked out of 1.00

 Flag question

Output is a merged array without duplicates.

Input Format

N1 - no of elements in array 1

Array elements for array 1

N2 - no of elements in array 2

Array elements for array2

Output Format

Display the merged array

Sample Input 1

5

1 2 3 6 9

4

2 4 5 10

Sample Output 1

1 2 3 4 5 6 9 10

For example:

| Input                           | Result           |
|---------------------------------|------------------|
| 5<br>1 2 3 6 9<br>4<br>2 4 5 10 | 1 2 3 4 5 6 9 10 |

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int a,b;
5     scanf("%d",&a);
6     int arr1[a];
7     for(int i=0;i<a;i++)
8     scanf("%d",&arr1[i]);
9     scanf("%d",&b);
10    int arr2[b];
11    for(int i=0;i<b;i++)
12    scanf("%d",&arr2[i]);
13    int p=0,q=0;
14    while((p<a)&&(q<b))
15    {
16        if(arr1[p]<arr2[q])
17        {
18            printf("%d ",arr1[p]);
19            p++;
20        }else if(arr1[p]>arr2[q]){
21            printf("%d ",arr2[q]);
22            q++;
23        }else{
24            printf("%d ",arr1[p]);
25            p++;
26            q++;
27        }
28    } for(int j=p;j<a;j++)
29    {
30        printf("%d ",arr1[j]);
31    }for(int j=q;j<b;j++)
32    {printf("%d ",arr2[j]);}
33 }

```

|   | Input                           | Expected         | Got              |   |
|---|---------------------------------|------------------|------------------|---|
| ✓ | 5<br>1 2 3 6 9<br>4<br>2 4 5 10 | 1 2 3 4 5 6 9 10 | 1 2 3 4 5 6 9 10 | ✓ |

Passed all tests! ✓