ROLL NO: 240701014

Status	Finished
Started	Thursday, 16 January 2025, 11:06 AM
Completed	Thursday, 16 January 2025, 11:25 AM
Duration	18 mins 58 secs

Question 1

Correct

Marked out of 1.00

Flag question

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 1 3 5 2 1 8 6 9 3	5 5 5 8 8 9
10 3 7 5 1 2 9 8 5 3 2 3	7 7 5 9 9 9 8 5

Answer: (penalty regime: 0 %)

```
#include<stdio.h>
int main()
{
    int n,k;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&arr[i]);
    }
    scanf("%d",&k);
    for(int a=0;a<=n-k;a++)
    {
        int max=arr[a];
        for(int b=a;b<a+k;b++)
        {
            if(arr[b]>max)
            {
                max=arr[b];
            }
        }
        printf("%d ",max);
    }
}
```

	Input	Expected	Got
✓	8 1 3 5 2 1 8 6 9 3	5 5 5 8 8 9	5 5 5 8 8 9
✓	10 3 7 5 1 2 9 8 5 3 2 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 5 8 10 13 6 2 3	17
7 20 35 57 30 56 87 30 10	33

Answer: (penalty regime: 0 %)

```
#include<stdio.h>
int main()
{
    int n,t,count=0;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&arr[i]);
    }
    scanf("%d",&t);
    for(int j=0;j<n;j++)
    {
        while(arr[j]>0)
        {
            arr[j]-=t;
            count++;
        }
    }
    printf("%d",count);
}
```

	Input	Expected	Got	
✓	6 5 8 10 13 6 2 3	17	17	✓
✓	7 20 35 57 30 56 87 30 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 1 2 3 6 9 4 2 4 5 10	1 2 3 4 5 6 9 10

Answer: (penalty regime: 0 %)

```
#include<stdio.h>
int main()
{
    int a,b;
    scanf("%d",&a);
    int arr1[a];
    for(int i=0;i<a;i++)
    {
        scanf("%d",&arr1[i]);
    }
    scanf("%d",&b);
    int arr2[b];
    for(int i=0;i<b;i++)
    {
        scanf("%d",&arr2[i]);
    }
    int p=0,q=0;
    while((p<a)&&(q<b))
    {
        if(arr1[p]<arr2[q])
        {
            printf("%d ",arr1[p]);
            p++;
        }
        else if(arr1[p]>arr2[q])
        {
            printf("%d ",arr2[q]);
            q++;
        }
        else
        {
            printf("%d ",arr1[p]);
            p++;q++;
        }
    }
    for(int j=p;j<a;j++)
    {
        printf("%d ",arr1[j]);
    }
    for(int j=q;j<b;j++)
    {
        printf("%d ",arr2[j]);
    }
}
```

	Input	Expected	Got
✓	5 1 2 3 6 9 4 2 4 5 10	1 2 3 4 5 6 9 10	1 2 3 4 5 6 9 10