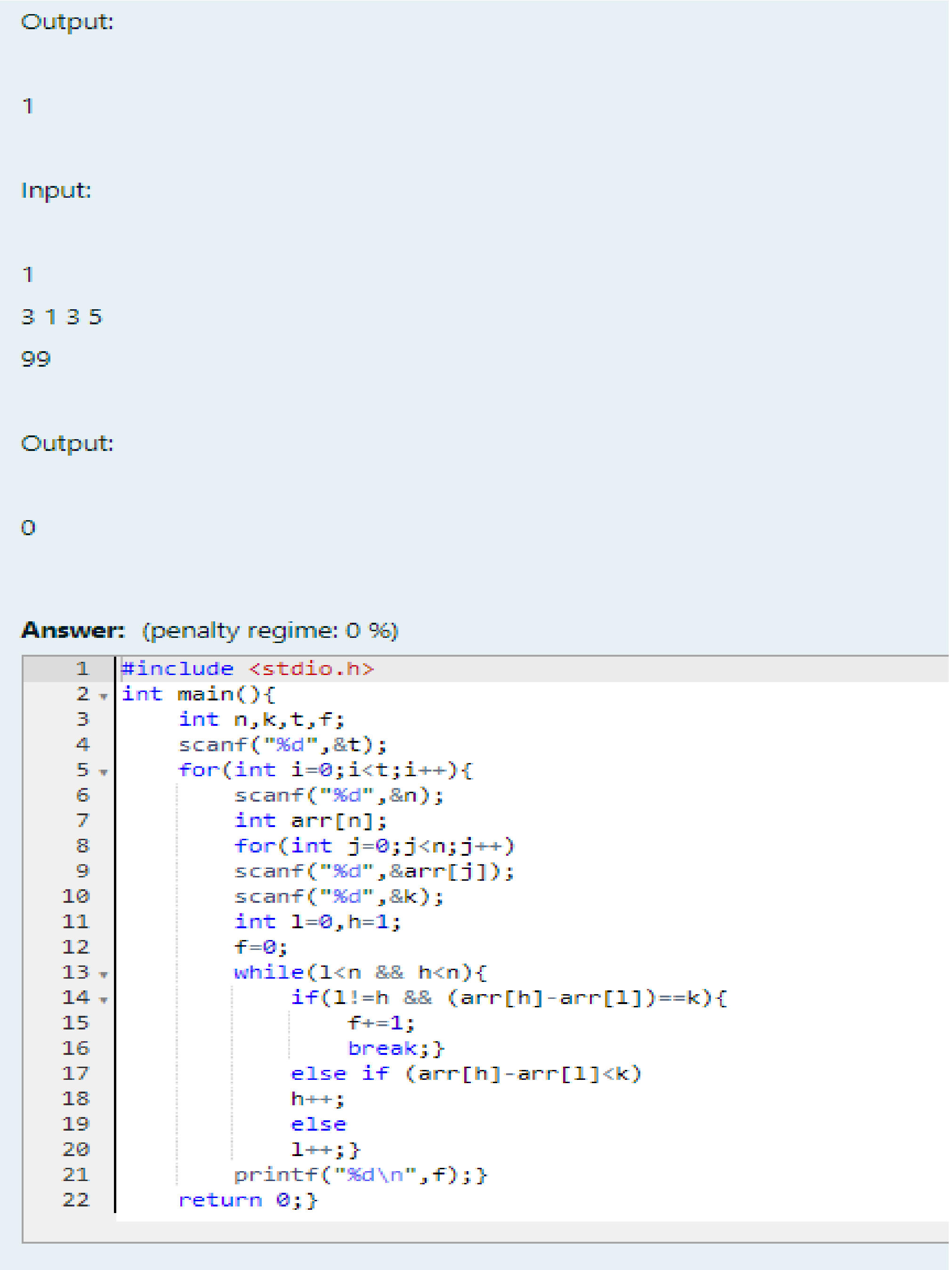
WEEK 6



Output:

1

Input:

1

3 1 3 5

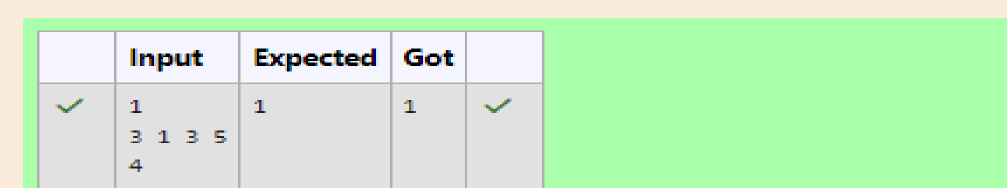
99

Output:

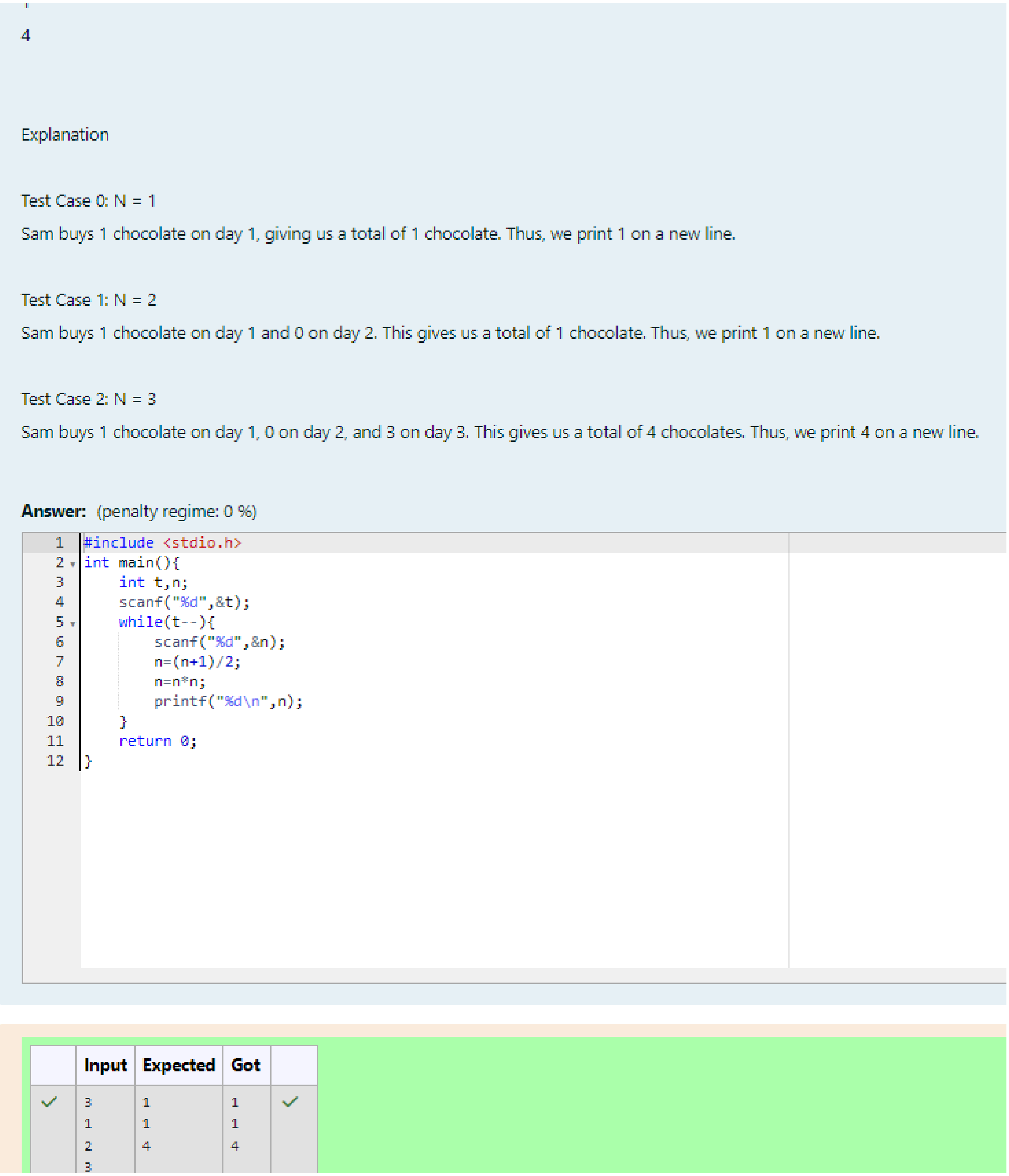
0

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
int main(){
    int n,k,t,f;
    scanf("%d",&t);
    for(int i=0;i<t;i++){
        scanf("%d",&n);
        int arr[n];
        for(int j=0;j<n;j++)
        scanf("%d",&arr[j]);
        scanf("%d",&k);
        int l=0,h=1;
        f=0;
        while(l<n && h<n){
            if(l!=h && (arr[h]-arr[l])==k){
                f+=1;
                break;}
            else if (arr[h]-arr[l]<k)
            h++;
            else
            l++;}
        printf("%d\n",f);}
    return 0;}
```



	Input	Expected	Got	
✓	1 3 1 3 5 4	1	1	✓



1

4

Explanation

Test Case 0: N = 1

Sam buys 1 chocolate on day 1, giving us a total of 1 chocolate. Thus, we print 1 on a new line.

Test Case 1: N = 2

Sam buys 1 chocolate on day 1 and 0 on day 2. This gives us a total of 1 chocolate. Thus, we print 1 on a new line.

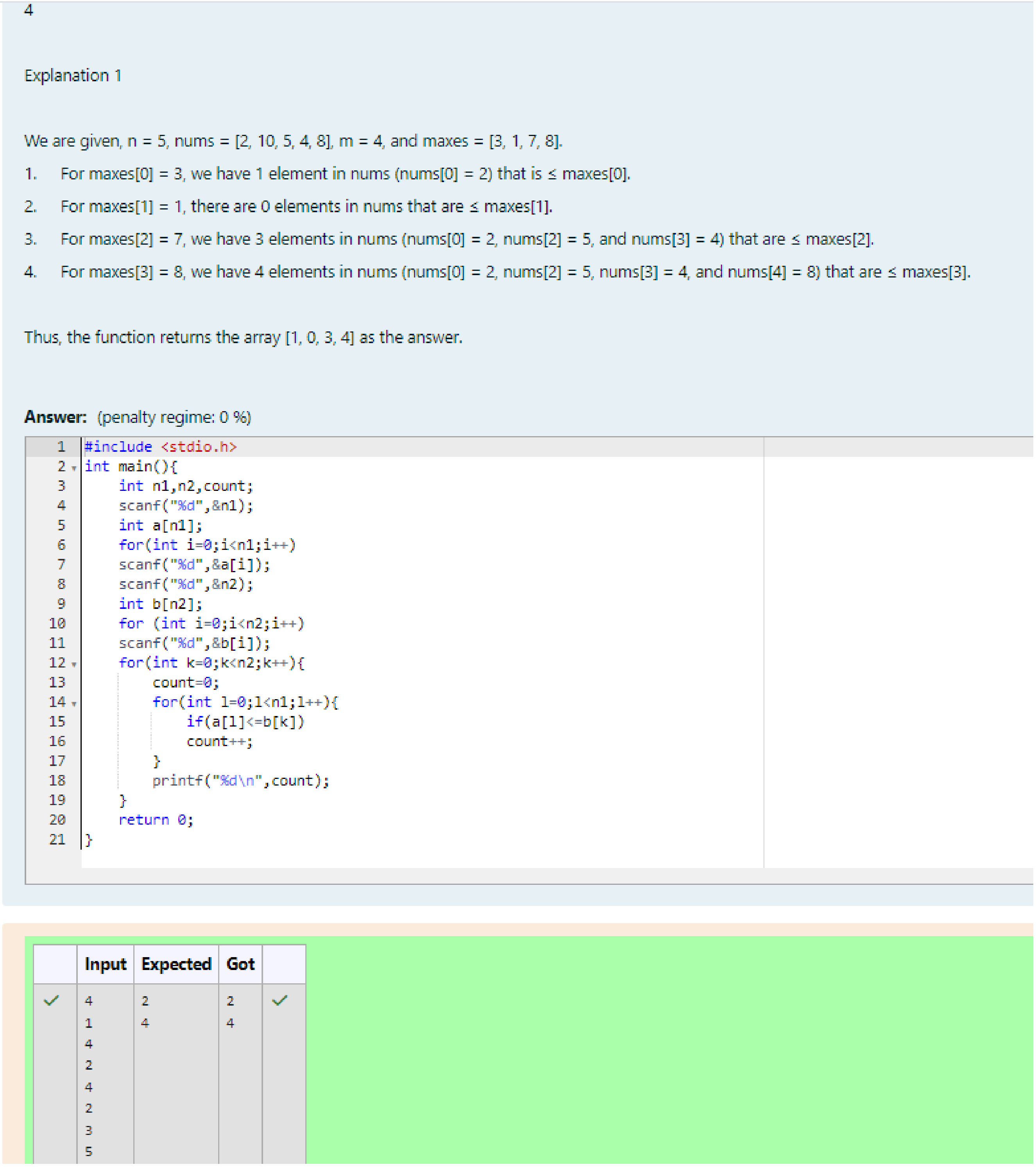
Test Case 2: N = 3

Sam buys 1 chocolate on day 1, 0 on day 2, and 3 on day 3. This gives us a total of 4 chocolates. Thus, we print 4 on a new line.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    int t,n;
    scanf("%d",&t);
    while(t--){
        scanf("%d",&n);
        n=(n+1)/2;
        n=n*n;
        printf("%d\n",n);
    }
    return 0;
}
```

	Input	Expected	Got	
✓	3 1 2 3	1 1 4	1 1 4	✓



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Explanation 1

We are given, n = 5, nums = [2, 10, 5, 4, 8], m = 4, and maxes = [3, 1, 7, 8].

1. For maxes[0] = 3, we have 1 element in nums (nums[0] = 2) that is ≤ maxes[0].
2. For maxes[1] = 1, there are 0 elements in nums that are ≤ maxes[1].
3. For maxes[2] = 7, we have 3 elements in nums (nums[0] = 2, nums[2] = 5, and nums[3] = 4) that are ≤ maxes[2].
4. For maxes[3] = 8, we have 4 elements in nums (nums[0] = 2, nums[2] = 5, nums[3] = 4, and nums[4] = 8) that are ≤ maxes[3].

Thus, the function returns the array [1, 0, 3, 4] as the answer.

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main(){
    int n1,n2,count;
    scanf("%d",&n1);
    int a[n1];
    for(int i=0;i<n1;i++)
    scanf("%d",&a[i]);
    scanf("%d",&n2);
    int b[n2];
    for (int i=0;i<n2;i++)
    scanf("%d",&b[i]);
    for(int k=0;k<n2;k++){
        count=0;
        for(int l=0;l<n1;l++){
            if(a[l]<=b[k])
            count++;
        }
        printf("%d\n",count);
    }
    return 0;
}
```

	Input	Expected	Got	
✓	4 1 4 2 4 2 3 5	2 4	2 4	✓