

WEEK - 6

REC-CIS

MAHALAKSHMI S 2024-CSE M2

dimensiona...

- > Week-10-Character Arrays and Strings
- > Assessment-10-Character Arrays and Strings
- > Week-11-String Handling Functions
- > Assessment-11-String Handling Functions
- > Week-12-User-Defined Functions
- > Assessment-12-User-Defined Functions
- > Week-12-Recursive

Week-06-One-Dimensional Arrays

Week-06-01-Practice Session-Coding

Done

Week-06-01-One-Dimensional Arrays

Coding

Done

Week - 06 - 01 - Practice Session coding

```
1 #include<stdio.h>
2 int tag1(int arr[], int n,int k){
3     int left = 0;
4     int right = 1;
5     while(right < n){
6         int diff = arr[right] - arr[left];
7         if(diff == k && left != right){
8             return 1;
9         }
10        else if(diff < k){
11            right++;
12        }
13        else{
14            left++;
15        }
16        if(left == right){
17            right++;
18        }
19    }
20    return 0;
21 }
22 int main(){
23     int t;
24     scanf("%d", &t);
25     while(t--){
26         int N, K;
27         scanf("%d", &N);
28         int arr[N];
29         for(int i = 0; i < N; i++){
30             scanf("%d", &arr[i]);
31         }
32         scanf("%d", &K);
33         if(tag1 (arr, N, K)){
34             printf("1\n");
35         }
36         else{
37             printf("0\n");
38         }
39     }
40 }
```

	Input	Expected	Got	
✓	1 3 1 3 5 4	1	1	✓
✓	1 3 1 3 5 99	0	0	✓

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      int t;
4      scanf("%d", &t);
5      for(int i = 0; i < t; i++){
6          int n;
7          scanf("%d", &n);
8          int m = (n + 1) / 2;
9          int choco = m * m;
10         printf("%d\n", choco);
11     }
12     return 0;
13 }
```

	Input	Expected	Got	
✓	3	1	1	✓
	1	1	1	
	2	4	4	
	3			
✓	10	1296	1296	✓
	71	2500	2500	
	100	1849	1849	
	86	729	729	
	54	400	400	
	40	25	25	
	9	1521	1521	
	77	25	25	
	9	49	49	
	13	2401	2401	
	98			

Passed all tests! ✓

```

1  #include<stdio.h>
2  int main(){
3      int n, m;
4      scanf("%d", &n);
5      int a[n];
6      for(int i = 0; i < n; i++){
7          scanf("%d", &a[i]);
8      }
9      scanf("%d", &m);
10     int b[m];
11     for(int i = 0; i < m; i++){
12         scanf("%d", &b[i]);
13     }
14     for(int i = 0; i < n; i++){
15         for(int j = i + 1; j < n; j++){
16             if(a[i] > a[j]){
17                 int temp = a[i];
18                 a[i] = a[j];
19                 a[j] = temp;
20             }
21         }
22     }
23     for(int i = 0; i < m; i++){
24         int total = b[i];
25         int count = 0;
26         for(int j = 0; j < n; j++){
27             if(a[j] <= total){
28                 count++;
29             }
30         }
31         printf("%d\n", count);
32     }
33     return 0;
34 }

```

	Input	Expected	Got	
✓	4	2	2	✓
	1	4	4	
	4			
	2			
	4			
	2			
	3			
	5			
✓	5	1	1	✓
	2	0	0	
	10	3	3	
	5	4	4	
	4			
	8			
	4			
	3			
	1			
	7			
	8			

Passed all tests! ✓

Coding

```

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

```

	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! ✓

```

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

```

	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! ✓

```

1 #include<stdio.h>
2 #include<stdlib.h>
3 int cmp(const void * a, const void * b){
4     return (*((int*)a) - *((int*)b));
5 }
6 int main(){
7     int a, b;
8     scanf("%d", &a);
9     int c[a];
10    for(int i = 0; i < a; i++){
11        scanf("%d", &c[i]);
12    }
13    scanf("%d", &b);
14    int d[b];
15    for(int i = 0; i < b; i++){
16        scanf("%d", &d[i]);
17    }
18    int f = a + b;
19    int e[f];
20    int k = 0;
21    for(int i = 0; i < a; i++){
22        e[k++] = c[i];
23    }
24    for(int i = 0; i < b; i++){
25        int s = 0;
26        for(int j = 0; j < a; j++){
27            if(d[i] == c[j]){
28                s = 1;
29                break;
30            }
31        }
32        if(!s){
33            e[k] = d[i];
34            k++;
35        }
36    }
37    qsort(e, k, sizeof(int), cmp);
38    for(int i = 0; i < k; i++){
39        printf("%d ", e[i]);
40    }
41 }

```

	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	✓

Passed all tests! ✓