C 33_q65.c > ⊙ main()

```c
1    // Q65: Search in a sorted array using binary search.
2
3    /*
4    Sample Test Cases:
5    Input 1:
6    5
7    1 3 5 7 9
8    7
9    Output 1:
10   Found at index 3
11
12   Input 2:
13   5
14   1 3 5 7 9
15   6
16   Output 2:
17   -1
18
19   */
20
21   #include<stdio.h>
22   int main(){
23   int n,i,key,low,high,mid,found=-1;
24   scanf("%d",&n);
25   int a[n];
26   for(i=0;i<n;i++)scanf("%d",&a[i]);
27   scanf("%d",&key);
28   low=0; high=n-1;
29   while(low<=high){
30   mid=(low+high)/2;
31   if(a[mid]==key){
32   found=mid;
33   break;
34   }
35   else if(a[mid]<key)low=mid+1;
36   else high=mid-1;
37   }
38   if(found!=-1)printf("Found at index %d",found);
39   else printf("-1");
40   return 0;
41   }
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\33_q65.c
PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
5
1 3 5 7 9
7
Found at index 3
PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\33_q65.c
PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
5
1 3 5 7 9
6
-1
PS C:\Users\drago\OneDrive\Desktop\C H.W>
```

C 33_q66.c > ...

```c
1    // Q66: Insert an element in a sorted array at the appropriate position.
2
3    /*
4    Sample Test Cases:
5    Input 1:
6    5
7    1 2 4 5 6
8    3
9    Output 1:
10   1 2 3 4 5 6
11
12   */
13
14   #include<stdio.h>
15   int main(){
16   int n,i,pos,key;
17   scanf("%d",&n);
18   int a[100];
19   for(i=0;i<n;i++)scanf("%d",&a[i]);
20   scanf("%d",&key);
21   for(pos=n;pos>0&&a[pos-1]>key;pos--)a[pos]=a[pos-1];
22   a[pos]=key;
23   for(i=0;i<=n;i++)printf("%d ",a[i]);
24   return 0;
25   }
26
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\drago\OneDrive\Desktop\C H.W> gcc .\33_q66.c
PS C:\Users\drago\OneDrive\Desktop\C H.W> ./a.exe
5
1 2 4 5 6
3
1 2 3 4 5 6
PS C:\Users\drago\OneDrive\Desktop\C H.W>
```