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CS27

## Linear Search

### Question

Implement linear search

### Source Code

```
#include <stdio.h>
#include <stdlib.h>

int main (){

    int array_size,search_term;

    printf("Enter size of array : ");
    scanf("%d",&array_size);

    int *array=calloc(array_size,sizeof(int));

    printf("Enter the elements : \n");
    for(int i=0;i<array_size;++i)
        scanf("%d",&array[i]);

    printf("Enter the number to search for : ");
    scanf("%d",&search_term);

    for(int i=0;i<array_size;++i)
        if(search_term==array[i]){
            printf("The number you searched for is at position %d index
↪ %d \n",i+1,i);
            break;
        }
    free(array);
    return 0;
}
```

### Output

```
Enter size of array : 10
Enter the elements :
7
6
3
9
0
1
5
6
```

3

8

Enter the number to search for : 1

The number you searched for is at position 6 index 5