

Searching

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1.

```
#include <stdio.h>
int main(){
    int n = 8, key;
    int arr[n];
    for(int i = 0; i < n; i++)
        scanf("%d", &arr[i]);
    printf("Key = ");
    scanf("%d", &key);
    int flag = -1;
    for(int i = 0; i < n; i++)
        if(arr[i] == key)
            flag = i;
    if(flag == -1)
        printf("Item not found\n");
    else
        printf("Last occurrence = %d\n", flag);
    return 0;
}
```

2.

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

```
int main(){
```

```
    int n = 8, key;
```

```
    int arr[n];
```

```
    for(int i = 0; i < n; i++)
```

```
        scanf("%d", &arr[i]);
```

```
    printf("Search = ");
```

```
    scanf("%d", &key);
```

```
    int flag = -1;
```

```
    for(int i = 0; i < n; i++)
```

```
        if(arr[i] == key)
```

```
            flag = i;
```

```
    if(flag == -1)
```

```
        printf("Product not available\n");
```

```
    else
```

```
        printf("Position = %d Row\n", flag);
```

```
    return 0;
```

```
}
```

3.

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

```
int main(){
```

```
    int n = 6, key;
```

```
    int arr[n];
```

```
    for(int i = 0; i < n; i++)
```

```
        scanf("%d", &arr[i]);
```

```
    printf("Key = ");
```

```
    scanf("%d", &key);
```

```
    int flag = -1;
```

```
    int left = 0, right = n - 1;
```

```
    while(left <= right){
```

```
        int mid = (left + right) / 2;
```

```
        if(arr[mid] == key){
```

```
            flag = mid;
```

```
            break;
```

```
        }else if(arr[mid] > key)
```

```
            right = mid - 1;
```

```
        else
```

```
            left = mid + 1;
```

```
    }
```

```
    if(flag == -1)
```

```
        printf("Not Found\n");
```

```
    else
```

```
        printf("Found at %d position\n", flag);
```

```
    return 0;
```

```
}
```