

SOURCE CODE: BINARY SEARCH:

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

void main()
{
    int i,a[10],n,l=0,h=0,m,num,f=1;

    clrscr();

    printf("Enter how many elements\n");
    scanf("%d",&n);
    printf("Enter sorted elements\n");
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
    printf("Enter the element to search\n");
    scanf("%d",&num);
    h=n-1;
    for(m=(l+h)/2;l<=h;m=(l+h)/2)
    {
        if(a[m]==num)
        {
            printf("Element is found at %d\n",m);
            f=0;
            break;
        }
        if(a[m]>num)
            h=m-1;
        else
            l=m+1;
    }
    if(f)
        printf("Not Found\n");
    getch();
}
```

```
}
```

OUTPUT:

```
Enter how many elements
5
Enter sorted elements
12 14 16 18 20
Enter the element to search
16
Element is found at 2
```

SOURCE CODE: LINEAR SEARCH:

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

void main()
{
    int n,num,i,f=0,a[10];

    clrscr();

    printf("Entre how many elements\n");

    scanf("%d",&n);

    for(i=0;i<n;i++)
        scanf("%d",&a[i]);

    printf("Enter the elements to serach\n");

    scanf("%d",&num);

    for(i=0;i<n;i++)
    {
        if(a[i]==num)
        {
            f=1;

            break;
        }
    }

    if(f==1)
    {
        printf("Element is found at %d position",i);
    }

    else
    {
        printf("Element is not found");
    }

    getch();
}
```

OUTPUT:

```
Entre how many elements
5
10 12 14 16 18
Enter the elements to serach
14
Element is found at 2 position
```