***Linear Search***

#include<stdio.h>

void main()

{

int arr[50],i,num,found,size;

printf("Enter size of array: ");

scanf("%d",&size);

printf("Enter Elements of arr: ");

for(i=0;i<size;i++)

{

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

}

printf("Enter the value you want to search: ");

scanf("%d",&num);

for(i=0;i<size;i++)

{

if(arr[i]==num)

{

found=1;

printf("Found at %d",i+1);

break;

}

}

if(found==0)

{

printf("Entered value is not present in array");

}

}

BINARY SEARCH

#include<stdio.h>

void main()

{

int arr[50],size,i,num,found;

printf("Enter size of array: ");

scanf("%d",&size);

printf("Enter Elements of arr: ");

for(i=0;i<size;i++)

{

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

}

printf("Enter the value you want to search: ");

scanf("%d",&num);

int mid,lb,ub;

lb=0;

ub=size-1;

while(lb<=ub)

{

found=1;

mid=(lb+ub)/2;

if(num==arr[mid])

{

printf("Element found at %d",mid);

break;

}

else if(num<arr[mid])

{

ub=mid-1;

}

else

{

lb=mid+1;

}

}

if(found==0)

{

printf("Invalid input");

}

}