**Binary search**

**#include<stdio.h>**

**int main()**

**{**

**int a[10];**

**int n,i,num;**

**printf("enter the size of array \n");**

**scanf("%d",&n);**

**printf("enter the element of array \n");**

**for(i=0;i<n;i++)**

**{**

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

**}**

**printf("enter the number that you want to find ");**

**scanf("%d",&num);**

**int beg=0,end=n-1;**

**int mid;**

**while(beg<end)**

**{**

**mid=(beg+end)/2;**

**if(a[mid]==num)**

**{**

**printf("number is found at %d position",mid+1);**

**break;**

**}**

**else if(num<a[mid])**

**end=mid-1;**

**else**

**beg=mid+1;**

**}**

**if(beg>end)**

**{**

**printf("number is not found in this array");**

**}**

**return 0;**

**}**

