#include<stdio.h>//standard input output header file//  
int binary\_search(int arr[],int x, int low,int high)//initializing the binary\_search//  
{  
        if(high>=low)//checks the condition//  
        {  
        int mid=(high+low)/2;//does the sum of high plus low whole divided by 2//  
        if(arr[mid]==x)//checks the condition//  
        return mid;//returns the mid value//  
        else if(arr[mid]>x)//checks the condition//  
        return binary\_search(arr,x,low,mid-1);//returns the value//  
        else  
        return binary\_search(arr,x,mid+1,high);//return the value//  
        }  
  return -1;  
}  
int main()//main function//  
{  
        int i,x,n;//initializing the I,x,n variables//  
        printf("enter the number of elements in the arr::\n");//prints the statement//  
        scanf("%d",&n);//store the value given in the memory location//  
        int arr[n];//initializing the arr[n]//  
        printf("enter the array elements in the ascending order::\n");//prints the statement//  
        for(i=0;i<n;i++)//checks the for loop and goes in to the loop if it get satisfies//  
        {  
                scanf("%d",&arr[i]);//scans the value and the initializing the memory location//  
        }  
        printf("enter the elements to search::\n");//prints the statement//  
        scanf("%d",&x);//initializes the memory location//  
        int result=binary\_search(arr,x,0,n-1);  
        if(result==-1)//checks the condition//  
        printf("not found\n");//print the value//  
        else  
        printf("elements found at %d",result+1);//print the result//  
}