

PROGRAM

```
#include<stdio.h>
void insertionsort(int a[],int n)
{
    int i,j,key;
    for(i=1;i<n;i++)
    {
        key=a[i];
        j=i-1;

        while(j>=0 && a[j]>key)
        {
            a[j+1]=a[j];
            j--;
        }

        a[j+1]=key;
    }
}
void read(int a[],int n)
{
    int i;
    printf("Enter the numbers : ");
    for(i=0;i<n;i++)
        scanf("%d",&a[i]);
}
void print(int a[],int n)
{
    int i;
    printf("Sorted array : ");
    for(i=0;i<n;i++)
        printf("%d\\n",a[i]);
}
void main()
{
    int a[100],n;
    printf("Size of the array : ");
    scanf("%d",&n);
    read(a,n);
    insertionsort(a,n);
    print(a,n);
}
```

OUTPUT

```
Size of the array : 7
Enter the numbers : 43
65
12
56
43
23
78
Sorted array : 12
23
43
43
56
65
78
```