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**NPTEL** (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » **Problem Solving Through Programming In C (course)**



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## Week 10 : Programming Assignment 03

**Due on 2023-10-05, 23:59 IST**

Write a C program to sort a given 1D array using pointer in ascending order.

### Sample Test Cases

#### Course outline

How does an  
NPTEL  
online  
course  
work? ()

Week 0 : ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()

Test Case 1

#### Input

8  
90  
70  
30  
-10  
-40  
20  
100  
50

#### Output

-40  
-10  
20  
30  
50  
70  
90  
100

Test Case 2

5  
20  
40  
50  
30  
10

10  
20  
30  
40  
50

The due date for submitting this assignment has passed.

**Assignment submitted on 2023-10-05, 21:39 IST**

Your last recorded submission was :

```
1 #include <stdio.h>
2 int main()
3 {
4     int a[100], i, n;
5     scanf("%d", &n); //Number of elements of the array is taken from the test
6
```

**Week 8 ()****Week 9 ()****Week 10 ()****Week 11 ()****Week 12 ()****DOWNLOAD  
VIDEOS ()****Books ()****Text  
Transcripts ()****Problem  
Solving  
Session -  
July 2023 ()**

```

7   for (i=0; i<n; i++)
8   {
9       scanf("%d",a+i); // Input the array elements
10  }
11  int j,t;
12  for(i=0; i<(n-1); i++)
13  {
14      for (j=i+1; j<n; j++)
15      {
16          if (*(a+i)>*(a+j))
17          {
18              t=*(a+i);
19              *(a+i)=*(a+j);
20              *(a+j)=t;
21          }
22      }
23  }
24  // Printing sorted array in ascending order
25  for (i=0; i<n; i++)
26  {
27      printf("%d\n",*(a+i));
28  }
29  return 0;
30  }

```

Sample solutions (Provided by instructor)

```

1  #include <stdio.h>
2  int main()
3  {
4      int a[100],i, n;
5      scanf("%d",&n); //Number of elements of the array is taken from the test
6
7      for (i=0; i<n; i++)
8      {
9          scanf("%d",a+i); // Input the array elements
10     }
11     int j,t;
12     for (i=0; i<(n-1); i++)
13     {
14         for (j=i+1; j<n; j++)
15         {
16             if (*(a+i)>*(a+j))
17             {
18                 t=*(a+i);
19                 *(a+i)=*(a+j);
20                 *(a+j)=t;
21             }
22         }
23     }
24     // Printing sorted array in ascending order
25     for (i=0; i<n; i++)
26     {
27         printf("%d\n",*(a+i));
28     }
29     return 0;
30 }

```