

## **Problem Set on Array**

1. Write a c program, declare an array with a size of 5. Store 10, 20, 30, 40 and 50 in it and print them as output.

<b>Sample Input</b>	<b>Sample Output</b>
	10 20 30 40 50

2. Write a C program to take 4 size array and array elements from the user ,and print them.

<b>Sample Input</b>	<b>Sample Output</b>
5	5
6	6
8	8
9	9

3. Take a n size array and take the array element from the user and print them.

Sample Input	Sample Output
Array size: 5 1 2 5 7 9	1 2 5 7 9

4. Take a n size array and take the array element from the user and print them.

Sample Input	Sample Output
Enter array size: 10 4 12 7 19 .....	Your elements: a[0]=4 a[1]=12 a[2]=7 a[3]=19 .....

5. Write a C program to take 7 values from the user in an array. Use a loop to input those values from the user. As output, print those values.

Sample Input	Sample Output
5	5
10	10
15	15
20	20
25	25
30	30
35	35

6. Take a N size array from the user and array input take from the user and print it in the reverse way.

Sample Input	Sample Output
size=6	30
5	25
10	20
15	15
20	10
25	5
30	

7. Write a c program to take N user input in an array and print the sum of those N values.

Sample Input	Sample Output
Enter array size: 4 4 3 6 8	Sum = 21

8. Write a C program that would calculate the average of all the elements in an array array size and array input taken from the user .

Sample Input	Sample Output
Array size :3 Enter Array Elements: 10 15 15	Avg = 13.3

9. Write a C program to find the maximum value in an array.

Sample Input	Sample Output
Array size = 10 55 23 20 13 .....	Maximum: 55

10. Write a C program to find the minimum value in an array.

Sample Input	Sample Output
Array size = 10 45 23 20 13 .....	Minimum: 13

11. Write a program in C to find the maximum and minimum element in an array.

Sample Input	Sample Output
Array size = 10 55 23 20 13 .....	Maximum: 55 Minimum: 13

12. Take a N size array and all array input from the user and also take an integer x and find whether the x exists in the array or not.If the x exists in array print YES otherwise print NO.

Sample Input	Sample Output
Enter array size: 4 4 3 6 8 Finding value = 6	YES

13. Write a C program that would find the difference between the minimum and the maximum number in an array size and element taken from the user.

Sample Input	Sample Output
4 Enter Array Elements: 90 120 22 11	Difference = 109

14. Write a program in C to find the second largest element in an array

Sample Input	Sample Output
Array size: 4 Enter Array Elements: 90 60 22 11	Second Max: 60

15. Write a C program that would search for a particular number in an array.

Sample Input	Sample Output
3 Enter Array Elements: 30 33 12 Enter the number: 12	Found at index 2

16. Write a program in C to separate odd and even integers in separate arrays.

Sample Input	Sample Output
Input array size: 5 Input elements in the array : 25 47 42 56 32	The Even elements are : 42 56 32 The Odd elements are : 25 47



17. Write a C program that would only print the sum of all the even numbers in an array.

Sample Input	Sample Output
4 Enter Array Elements: 30 33 12 10	Sum of Even Numbers = 52

18. Write a C program that would count the even numbers in an array.

Sample Input	Sample Output
4 Enter Array Elements: 30 33 13 11	No. Even Numbers: 1

19. Write a program in C to print the duplicate elements in an array.

Sample Input	Sample Output
7 Enter Array Elements: 90 22 22 11 23 21 22	Duplicate 22

20. Write a program in C to print all unique elements in an array

Sample Input	Sample Output
5 Enter Array Elements: 30 22 31 23 23	Unique Elements: 30 22 31

21. Take a N size array and array element taken from user. Write a program in C to copy the elements of one array into another array.

<b>Sample Input</b>	<b>Sample Output</b>
Array size 3 15 10 12	The elements stored in the first array are :15 10 12 The elements copied into the second array are :15 10 12

22. Write a program in C to sort elements of an array in ascending order.

Sample Input	Sample Output
5 3 6 8 2 4	2 3 4 6 8

23. Write a program in C to sort the elements of the array in descending order.

Sample Input	Sample Output
5 3 6 8 2 4	8 6 4 3 2

24. Write a program in C to find the second largest element in an array..

Sample Input	Sample Output
5 3 6 8 2 4	6

25. Write a program in C to find the second smallest element in an array.

Sample Input	Sample Output
5 3 6 8 2 4	3

26. Write a program in C to merge two arrays of the same size.

Sample Input	Sample Output
Array size 3 1 3 2 Array size 3 7 6 8	1 3 2 7 6 8

27. Write a program in C to count the frequency of each element of an array.

Sample Input	Sample Output
3 5 7 2	5 occurs 1 times 7 occurs 1 times 2 occurs 1 times