Array related problems (total 21 questions)

<table>
<tr><th>SL</th><th>Problem statement</th><th>Difficulty levels</th></tr>
<tr><td>1.</td><td>WAP that will take n integer numbers into an array, and then print all the integers into reverse order (from the last valid index to index 0).

<table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>5
1 2 3 4 5</td><td>5 4 3 2 1</td></tr><tr><td>6
2 8 3 9 0 1</td><td>1 0 9 3 8 2</td></tr></table></td><td>*</td></tr>
<tr><td>2.</td><td>WAP that will take n integer numbers into an array, and then sum up all the integers in that array.

<table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>5
1 2 3 4 5</td><td>15</td></tr><tr><td>6
2 8 3 9 0 1</td><td>23</td></tr></table></td><td>*</td></tr>
<tr><td>3.</td><td>WAP that will take n integer numbers into an array, and then sum up all the even integers in that array.

<table><tr><td>Sample input</td><td>Sample output</td></tr><tr><td>5
1 2 3 4 5</td><td>6</td></tr><tr><td>6
2 8 3 9 0 1</td><td>10</td></tr></table></td><td>*</td></tr>
<tr><td>4.</td><td>WAP that will take n floating point numbers into an array, and then find the average of those numbers.

<table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>5
1.2 5.6 10.3 4.5 5.2</td><td>5.36</td></tr><tr><td>8
2.1 8.3 3.7 9.2 0.6 1.5 6.4 10.1</td><td>8.38</td></tr></table></td><td>*</td></tr>
<tr><td>5.</td><td>WAP that will take n integer numbers into an array, and then sum up all the even indexed integers in that array.</td><td>*</td></tr>
</table>

Sample input	Sample output
5 1 2 3 4 5	9
6 2 8 3 9 0 1	5

6. Wap that will take n integer numbers in an array, n different integer numbers in a second array and put the sum of the same indexed numbers from the two arrays in a third array.

Sample input	Sample output
5 1 2 3 4 5 2 8 3 4 8	3 10 6 8 13
8 2 8 3 9 0 1 6 10 5 1 4 8 9 3 1 5	7 9 7 17 9 4 7 15

7. WAP that will take n integer numbers into an array, and then reverse all the integers within that array. Finally print them all from 0 index to last valid index. **

Sample input	Sample output
5 1 2 3 4 5	5 4 3 2 1
6 2 8 3 9 0 1	1 0 9 3 8 2

8. WAP that will take n integer numbers into an array, and then find the maximum - minimum among them with its index position. **

Sample input	Sample output
5 1 2 3 4 5	Max: 5, Index: 4 Min: 1, Index: 0
6 2 8 3 9 0 1	Max: 9, Index: 3 Min: 0, Index: 4

9. WAP that will take n alphabets into an array, and then count number of vowels in that array. *

Sample input	Sample output
7 AKIOUEH	Count: 5
29 UNITEDINTERNATIONALUNIVERSITY	Count: 13

10. WAP that will take n integers into an array, and then search a number into that array. If found then print its index. If not found then print "NOT FOUND". *

Sample input	Sample output
8 7 8 1 3 2 6 4 3 3	FOUND at index position: 3, 7
8 7 8 1 3 2 6 4 3 5	NOT FOUND

11. WAP that will take n integers into an array A, and then copy all numbers in reverse order from array A to another array B. Finally show all elements of both array A and B. *

Sample input	Sample output
8 7 8 1 3 2 6 4 3	Array A : 7 8 1 3 2 6 4 3 Array B : 3 4 6 2 3 1 8 7
3 3 2 1	Array A : 3 2 1 Array B : 1 2 3

12. WAP that will take n integer numbers as input in an array and then insert a number in a position specified by the user in the array. **

Sample input	Sample output
10 9 11 34 23 16 15 2 37 89 54 number: 78 position: 4	9 11 34 23 78 16 15 2 37 89 54
5 32 14 9 48 6 number: 16 position: 0	16 32 14 9 48 6

13. WAP that will take n integer numbers as input in an array and then delete a number from a position specified by the user in the array. *

Sample input	Sample output
10 9 11 34 23 16 15 2 37 89 54 position: 4	9 11 34 23 15 2 37 89 54

	5 32 14 9 48 6 position: 0	14 9 48 6	
14.	WAP that will first take n integers into an array A and then m integers into array B. Now swap all elements between array A and B. Finally show all elements of both array A and B. **Sample input**: 8 / 7 8 1 3 2 6 4 3 / 3 / 3 2 1 **Sample output**: Array A : 3 2 1 / Array B : 7 8 1 3 2 6 4 3		**
15.	WAP that will take n positive integers into an array A. Now find all the integers that are divisible by 3 and replace them by -1 in array A. Finally show all elements of array A. **Sample input**: 8 / 7 8 1 3 2 6 4 3 **Sample output**: 7 8 1 -1 2 -1 4 -1 **Sample input**: 3 / 3 2 1 **Sample output**: -1 2 1		*
16.	WAP that will take n positive integers into an array A. Now find all the integers that have an odd index and replace them by 0 in array A. Finally show all elements of array A. **Sample input**: 8 / 7 8 1 3 2 6 4 3 **Sample output**: 7 0 1 0 2 0 4 0 **Sample input**: 3 / 3 2 1 **Sample output**: 3 0 1		
17.	WAP that will take n integers into an array A. Now sort them in ascending order within that array. Finally show all elements of array A. Reference: http://en.wikipedia.org/wiki/Bubble_sort **Sample input**: 8 / 7 8 1 3 2 6 4 3 **Sample output**: 1 2 3 3 4 6 7 8 **Sample input**: 3 / 3 2 1 **Sample output**: 1 2 3		***

18.	WAP that will take n integers into an array A. Now remove all duplicates numbers from that array. Finally print all elements from that array. **Sample input** / **Sample output** 8 2 8 1 3 2 6 4 3 → 2 8 1 3 6 4 3 3 3 3 → 3 4 6 7 8 9 → 6 7 8 9	**
19.	WAP that will take n integers into array A and m positive integers into array B. Now find the intersection (set operation) of array A and B. **Sample input** / **Sample output** 8 7 8 1 5 2 6 4 3 6 1 3 6 0 9 2 → 1 2 6 3 3 1 2 3 2 4 5 → Empty set	**
20.	WAP that will take n integers into an array A and m positive integers into array B. Now find the union (set operation) of array A and B. **Sample input** / **Sample output** 8 7 8 1 5 2 6 4 3 6 1 3 6 0 9 2 → 7 8 1 5 2 6 4 3 0 9 3 1 2 3 2 4 5 → 1 2 3 4 5	**

21.	WAP that will take n integers into an array A and m positive integers into array B. Now find the difference (set operation) of array A and B or (A-B). **Sample input** / **Sample output** 8 7 8 1 5 2 6 4 3 6 1 3 6 0 9 2 → 7 8 5 4 3 1 2 3 2 4 5 → 1 2 3	**