

Array related problems (total 16 questions)

SL	Problem statement	Difficulty levels						
1.	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>		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
	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					
5th and 1st problem are same. Question is duplicate.								
2.	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>		Sample input	Sample output	5 1 2 3 4 5	15	6 2 8 3 9 0 1	23
	Sample input		Sample output					
	5 1 2 3 4 5		15					
	6 2 8 3 9 0 1		23					
3.	WAP that will take n integer numbers into an array, and then sum up all the even 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>6</td></tr><tr><td>6 2 8 3 9 0 1</td><td>10</td></tr></table>		Sample input	Sample output	5 1 2 3 4 5	6	6 2 8 3 9 0 1	10
	Sample input		Sample output					
	5 1 2 3 4 5		6					
	6 2 8 3 9 0 1		10					

4.	WAP that will take n integer numbers into an array, and then sum up all the even indexed 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>9</td></tr><tr><td>6 2 8 3 9 0 1</td><td>5</td></tr></table>		Sample input	Sample output	5 1 2 3 4 5	9	6 2 8 3 9 0 1	5	
Sample input	Sample output							
5 1 2 3 4 5	9							
6 2 8 3 9 0 1	5							
5.	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.	**						
<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> <p>5th and 1st problem are same. Question is duplicate.</p>		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	
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							
6.	WAP that will take n integer numbers into an array, and then find the maximum minimum among them with its index position.	**						
<table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>5 1 2 3 4 5</td><td>Max: 5, Index: 4 Min: 1, Index: 0</td></tr><tr><td>6 2 8 3 9 0 1</td><td>Max: 9, Index: 3 Min: 0, Index: 4</td></tr></table>		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	
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							
7.	WAP that will take n alphabets into an array, and then count number of vowels in that array.	*						
<table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>7 AKIOUEH</td><td>Count: 5</td></tr><tr><td>29 UNITEDINTERNATIONALUNIVERSITY</td><td>Count: 13</td></tr></table>		Sample input	Sample output	7 AKIOUEH	Count: 5	29 UNITEDINTERNATIONALUNIVERSITY	Count: 13	
Sample input	Sample output							
7 AKIOUEH	Count: 5							
29 UNITEDINTERNATIONALUNIVERSITY	Count: 13							

8.	<p>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”.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 3 2 6 4 3 3</td><td>FOUND at index position: 3, 7</td></tr><tr><td>8 7 8 1 3 2 6 4 3 5</td><td>NOT FOUND</td></tr></table>	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	*
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							
9.	<p>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.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 3 2 6 4 3</td><td>Array A : 7 8 1 3 2 6 4 3 Array B : 3 4 6 2 3 1 8 7</td></tr><tr><td>3 3 2 1</td><td>Array A : 3 2 1 Array B : 1 2 3</td></tr></table>	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	*
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							
10.	<p>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.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 3 2 6 4 3 3 3 2 1</td><td>Array A : 3 2 1 Array B : 7 8 1 3 2 6 4 3</td></tr></table>	Sample input	Sample output	8 7 8 1 3 2 6 4 3 3 3 2 1	Array A : 3 2 1 Array B : 7 8 1 3 2 6 4 3	**		
Sample input	Sample output							
8 7 8 1 3 2 6 4 3 3 3 2 1	Array A : 3 2 1 Array B : 7 8 1 3 2 6 4 3							
11.	<p>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.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 3 2 6 4 3</td><td>7 8 1 -1 2 -1 4 -1</td></tr><tr><td>3 3 2 1</td><td>-1 2 1</td></tr></table>	Sample input	Sample output	8 7 8 1 3 2 6 4 3	7 8 1 -1 2 -1 4 -1	3 3 2 1	-1 2 1	*
Sample input	Sample output							
8 7 8 1 3 2 6 4 3	7 8 1 -1 2 -1 4 -1							
3 3 2 1	-1 2 1							

12.	<p>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</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 3 2 6 4 3</td><td>1 2 3 3 4 6 7 8</td></tr><tr><td>3 3 2 1</td><td>1 2 3</td></tr></table>	Sample input	Sample output	8 7 8 1 3 2 6 4 3	1 2 3 3 4 6 7 8	3 3 2 1	1 2 3	***		
Sample input	Sample output									
8 7 8 1 3 2 6 4 3	1 2 3 3 4 6 7 8									
3 3 2 1	1 2 3									
13.	<p>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.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 2 8 1 3 2 6 4 3</td><td>2 8 1 3 6 4</td></tr><tr><td>3 3 3 3</td><td>3</td></tr><tr><td>4 6 7 8 9</td><td>6 7 8 9</td></tr></table>	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	**
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									
14.	<p>WAP that will take n integers into an array A and m positive integers into array B. Now find the intersection (set operation) of array A and B.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 5 2 6 4 3 6 1 3 6 0 9 2</td><td>1 2 6 3</td></tr><tr><td>3 1 2 3 2 4 5</td><td>Empty set</td></tr></table>	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	**		
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									

15.	<p>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.</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 5 2 6 4 3 6 1 3 6 0 9 2</td><td>7 8 1 5 2 6 4 3 0 9</td></tr><tr><td>3 1 2 3 2 4 5</td><td>1 2 3 4 5</td></tr></table>	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	**
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							
16.	<p>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).</p> <table><tr><th>Sample input</th><th>Sample output</th></tr><tr><td>8 7 8 1 5 2 6 4 3 6 1 3 6 0 9 2</td><td>7 8 5 4</td></tr><tr><td>3 1 2 3 2 4 5</td><td>1 2 3</td></tr></table>	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	**
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							