ZOHO L2 QUESTIONS - ARRAYS

1.Given an array . Create two arrays one for Odd Elements and other for Even Elements.

Input: [10,3,5,12,17,22]

Output:

[10,12,22]

[3,5,7]

Explanation:

[10,12,22] - Even Array

[3,5,7] - Odd Array

2.Custom Sort:

For a given array, print the following:

[Largest Number , Smallest Number , Second Largest Number ,

Second Smallest Number, …]

Input : 1 8 3 6 4

Output : 8 1 6 3 4

3.Sort the indexes of the array as per the elements of the array:

Input Array: [5, 6, 1, 2, 8, 4, 3, 0]

Sorted indices as per input array: [7, 2, 3, 6, 5, 0, 1, 4]

Input Array: [4, 3, 2, 1]

Sorted indices: [3, 2, 1, 0]

4.Given a String with numbers and operators. Perform the operation on the numbers in their respective order. Operator precedence need not be considered. The input string will have the numbers followed by the operators.
Input: 12345 * + - +
Result: 6

Input: 374291 - - * + -
Result:-4

5.Replace the array of numbers with next greatest to the each number in the right side of the array. If there is no greatest number than given, replace it by -1.

(Replace using the same array given. Do not use another array)

Input:
[1,9,7,56,36,91,42]

Output:
[7, 36,36,91,42,-1, -1]

6.Sort the given string array without using atoi or other built-in functions.

Input:
['1', '15', '20', '4', '9', '14']

Output:
['1', '4', '9', '14', '15', '20']

7.Given 2 lists find the union, intersection, and except of the 2 lists, where except contains numbers from first list if it is even and numbers from second list if it is odd

Input:
l1 = [1,2,5,3,8,9]
l2 = [1,7,5,8,8]

Output:
union [1, 2, 5, 3, 8, 9, 7]

except [2, 8, 1, 7, 5]
intersect [1, 5, 8]

8.Given a list find all the leaders in the list, a number is said to be a leader if it is greater than all the elements to the right of it

Input: leaders([16,17,4,3,5,2])
Output: 17,5,2

9. Sort the given array on the basis of number of factors each array element has. No new array should be created. Only the original array have to be modified.

Input: [8,15,25,36,42]

Output: [25,15,8,42,36]

Explanation:

Array Element	Number of Factors
8	4
15	4
25	3
36	9
42	8

10.Input : 3

Output: The valid parenthesis are [((())), (()()), (())(), ()(()), ()()()]

Hint: Use recursion for generate combinations of open & close parenthesis set. Then print only the valid parenthesis set .

//)())((- Invalid

// ()()() - Valid

******************************ALL THE BEST******************************