1. Write a JavaScript function to check whether an `input` is an array or not.

Test Data :

console.log(is\_array('w3resource'));

console.log(is\_array([1, 2, 4, 0]));

false

true

2. Write a JavaScript function to clone an array.

Test Data :

console.log(array\_Clone([1, 2, 4, 0]));

console.log(array\_Clone([1, 2, [4, 0]]));

[1, 2, 4, 0]

[1, 2, [4, 0]]

3. Write a JavaScript function to get the first element of an array. Passing a parameter 'n' will return the first 'n' elements of the array.

Test Data :

console.log(first([7, 9, 0, -2]));

console.log(first([],3));

console.log(first([7, 9, 0, -2],3));

console.log(first([7, 9, 0, -2],6));

console.log(first([7, 9, 0, -2],-3));

Expected Output :

7

[]

[7, 9, 0]

[7, 9, 0, -2]

[]

4. Write a JavaScript function to get the last element of an array. Passing a parameter 'n' will return the last 'n' elements of the array.

Test Data :

console.log(last([7, 9, 0, -2]));

console.log(last([7, 9, 0, -2],3));

console.log(last([7, 9, 0, -2],6));

Expected Output :

-2

[9, 0, -2]

[7, 9, 0, -2]

5. Write a simple JavaScript program to join all elements of the following array into a string.

Sample array : myColor = ["Red", "Green", "White", "Black"];

Expected Output :

"Red,Green,White,Black"

"Red,Green,White,Black"

"Red+Green+White+Black"

6. Write a JavaScript program which accept a number as input and insert dashes (-) between each two even numbers. For example if you accept 025468 the output should be 0-254-6-8.

7. Write a JavaScript program to sort the items of an array.

Sample array : var arr1 = [ 3, 8, 7, 6, 5, -4, 3, 2, 1 ];

Sample Output : -4,-3,1,2,3,5,6,7,8

8. Write a JavaScript program to find the most frequent item of an array.

Sample array : var arr1=[3, 'a', 'a', 'a', 2, 3, 'a', 3, 'a', 2, 4, 9, 3];

Sample Output : a ( 5 times )

9. Write a JavaScript program which accept a string as input and swap the case of each character. For example if you input 'The Quick Brown Fox' the output should be 'tHE qUICK bROWN fOX'.

10. Write a JavaScript program which prints the elements of the following array.

Note : Use nested for loops.

Sample array : var a = [[1, 2, 1, 24], [8, 11, 9, 4], [7, 0, 7, 27], [7, 4, 28, 14], [3, 10, 26, 7]];

Sample Output :

"row 0"

" 1"

" 2"

" 1"

" 24"

"row 1"

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11. Write a JavaScript program to find the sum of squares of a numeric vector.

12. Write a JavaScript program to compute the sum and product of an array of integers.

13. Write a JavaScript program to add items in an blank array and display the items.

Sample Screen :

add elements in an blank array

14. Write a JavaScript program to remove duplicate items from an array (ignore case sensitivity).

15. We have the following arrays :

color = ["Blue ", "Green", "Red", "Orange", "Violet", "Indigo", "Yellow "];

o = ["th","st","nd","rd"]

Write a JavaScript program to display the colors in the following way :

"1st choice is Blue ."

"2nd choice is Green."

"3rd choice is Red."

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Note : Use ordinal numbers to tell their position.

16. Write a JavaScript program to find the leap years in a given range of years.

17. Write a JavaScript program to shuffle an array.

18. Write a JavaScript program to perform a binary search.

Note : A binary search or half-interval search algorithm finds the position of a specified input value within an array sorted by key value.

Sample array :

var items = [1, 2, 3, 4, 5, 7, 8, 9];

Expected Output :

console.log(binary\_Search(items, 1)); //0

console.log(binary\_Search(items, 5)); //4

19. There are two arrays with individual values, write a JavaScript program to compute the sum of each individual index value from the given arrays.

Sample array :

array1 = [1,0,2,3,4];

array2 = [3,5,6,7,8,13];

Expected Output :

[4, 5, 8, 10, 12, 13]

20. Write a JavaScript program to find duplicate values in a JavaScript array.

21. Write a JavaScript program to flatten a nested (any depth) array. If you pass shallow, the array will only be flattened a single level.

Sample Data :

console.log(flatten([1, [2], [3, [[4]]],[5,6]]));

[1, 2, 3, 4, 5, 6]

console.log(flatten([1, [2], [3, [[4]]],[5,6]], true));

[1, 2, 3, [[4]], 5, 6]

22. Write a JavaScript program to compute the union of two arrays.

Sample Data :

console.log(union([1, 2, 3], [100, 2, 1, 10]));

[1, 2, 3, 10, 100]

23. Write a JavaScript function to find the difference of two arrays.

Test Data :

console.log(difference([1, 2, 3], [100, 2, 1, 10]));

["3", "10", "100"]

console.log(difference([1, 2, 3, 4, 5], [1, [2], [3, [[4]]],[5,6]]));

["6"]

console.log(difference([1, 2, 3], [100, 2, 1, 10]));

["3", "10", "100"]

24. Write a JavaScript function to remove. 'null', '0', '""', 'false', 'undefined' and 'NaN' values from an array.

Sample array : [NaN, 0, 15, false, -22, '',undefined, 47, null]

Expected result : [15, -22, 47]

25. Write a JavaScript function to sort the following array of objects by title value.

Sample object :

var library = [

   { author: 'Bill Gates', title: 'The Road Ahead', libraryID: 1254},

   { author: 'Steve Jobs', title: 'Walter Isaacson', libraryID: 4264},

   { author: 'Suzanne Collins', title: 'Mockingjay: The Final Book of The Hunger Games', libraryID: 3245}

   ];

Expected result :

[[object Object] {

  author: "Suzanne Collins",

  libraryID: 3245,

  title:"Mockingjay:The Final Book of The Hunger Games"

}, [object Object] {

  author: "Bill Gates",

  libraryID: 1254,

  title: "The Road Ahead"

}, [object Object] {

  author: "Steve Jobs",

  libraryID: 4264,

  title: "Walter Isaacson"

}]

26. Write a JavaScript program to find a pair of elements (indices of the two numbers) from an given array whose sum equals a specific target number.

Input: numbers= [10,20,10,40,50,60,70], target=50

Output: 2, 3

27. Write a JavaScript function to retrieve the value of a given property from all elements in an array.

Sample array : [NaN, 0, 15, false, -22, '',undefined, 47, null]

Expected result : [15, -22, 47]

28. Write a JavaScript function to find the longest common starting substring in a set of strings.

Sample array : console.log(longest\_common\_starting\_substring(['go', 'google']));

Expected result : "go"

29. Write a JavaScript function to fill an array with values (numeric, string with one character) on supplied bounds.

Test Data :

console.log(num\_string\_range('a', "z", 2));

["a", "c", "e", "g", "i", "k", "m", "o", "q", "s", "u", "w", "y"]

30. Write a JavaScript function to merge two arrays and removes all duplicates elements.

Test data :

var array1 = [1, 2, 3];

var array2 = [2, 30, 1];

console.log(merge\_array(array1, array2));

[3, 2, 30, 1]

31. Write a JavaScript function to remove a specific element from an array.

Test data :

console.log(remove\_array\_element([2, 5, 9, 6], 5));

[2, 9, 6]

32. Write a JavaScript function to find an array contains a specific element.

Test data :

arr = [2, 5, 9, 6];

console.log(contains(arr, 5));

[True]

33. Write a JavaScript script to empty an array keeping the original.

34. Write a JavaScript function to get nth largest element from an unsorted array.

Test Data :

console.log(nthlargest([ 43, 56, 23, 89, 88, 90, 99, 652], 4));

89

35. Write a JavaScript function to get a random item from an array.

36. Write a JavaScript function to create a specified number of elements with pre-filled numeric value array.

Test Data :

console.log(array\_filled(6, 0));

[0, 0, 0, 0, 0, 0]

console.log(array\_filled(4, 11));

[11, 11, 11, 11]

37. Write a JavaScript function to create a specified number of elements with pre-filled string value array.

Test Data :

console.log(array\_filled(3, 'default value'));

["default value", "default value", "default value"]

console.log(array\_filled(4, 'password'));

["password", "password", "password", "password"]

38. Write a JavaScript function to move an array element from one position to another.

Test Data :

console.log(move([10, 20, 30, 40, 50], 0, 2));

[20, 30, 10, 40, 50]

console.log(move([10, 20, 30, 40, 50], -1, -2));

[10, 20, 30, 50, 40]

39. Write a JavaScript function to filter false, null, 0 and blank values from an array.

Test Data :

console.log(filter\_array\_values([58, '', 'abcd', true, null, false, 0]));

[58, "abcd", true]

40. Write a JavaScript function to generate an array of specified length, filled with integer numbers, increase by one from starting position.

Test Data :

console.log(array\_range(1, 4));

[1, 2, 3, 4]

console.log(array\_range(-6, 4));

[-6, -5, -4, -3]

41. Write a JavaScript function to generate an array between two integers of 1 step length.

Test Data :

console.log(rangeBetwee(4, 7));

[4, 5, 6, 7]

console.log(rangeBetwee(-4, 7));

[-4, -3, -2, -1, 0, 1, 2, 3, 4, 5, 6, 7]

42. Write a JavaScript function to find the unique elements from two arrays.

Test Data :

console.log(difference([1, 2, 3], [100, 2, 1, 10]));

["1", "2", "3", "10", "100"]

console.log(difference([1, 2, 3, 4, 5], [1, [2], [3, [[4]]],[5,6]]));

["1", "2", "3", "4", "5", "6"]

console.log(difference([1, 2, 3], [100, 2, 1, 10]));

["1", "2", "3", "10", "100"]

43. Write a JavaScript function to create an array of arrays, ungrouping the elements in an array produced by zip.

Test Data :

unzip([['a', 1, true], ['b', 2, false]])

unzip([['a', 1, true], ['b', 2]])

Expected Output:

[["a","b"],[1,2],[true,false]]

[["a","b"],[1,2],[true]]

44. Write a JavaScript function to create an object from an array, using the specified key and excluding it from each value.

Test Data :

indexOn([ { id: 10, name: 'apple' }, { id: 20, name: 'orange' } ], x => x.id)

Expected Output:

{"undefined":{"id":20,"name":"orange"}}