1. Write a JavaScript function that reverse a number.
Example x = 32243;
Expected Output : 34223

2. Write a JavaScript function that checks whether a passed string is palindrome or not?
A palindrome is a word, phrase, or sequence that reads the same backward as forward, e.g., madam or nurses run.

3. Write a JavaScript function that generates all combinations of a string.
Example string : 'dog'
Expected Output : d,do,dog,o,og,g

4. Write a JavaScript function that returns a passed string with letters in alphabetical order.
Example string : 'webmaster'
Expected Output : 'abeemrstw'
Assume punctuation and numbers symbols are not included in the passed string.

5. Write a JavaScript function that accepts a string as a parameter and converts the first letter of each word of the string in upper case.
Example string : 'the quick brown fox'
Expected Output : 'The Quick Brown Fox '

6. Write a JavaScript function that accepts a string as a parameter and find the longest word within the string.
Example string : 'Web Development Tutorial'
Expected Output : 'Development'

7. Write a JavaScript function that accepts a string as a parameter and counts the number of vowels within the string.

8. Write a JavaScript function that accepts a number as a parameter and check if the number is prime or not.

9. Write a JavaScript function which accepts an argument and returns the type.

10. Write a JavaScript function which returns the n rows by n columns identity matrix.

11. Write a JavaScript function which will take an array of numbers stored and find the second lowest and second greatest numbers, respectively.

12. Write a JavaScript function which says whether a number is perfect.
Example : The first perfect number is 6, because 1, 2, and 3 are its proper positive divisors, and 1 + 2 + 3 = 6. Equivalently, the number 6 is equal to half the sum of all its positive divisors: (1 + 2 + 3 + 6) / 2 = 6. The next perfect number is 28 = 1 + 2 + 4 + 7 + 14. This is followed by the perfect numbers 496 and 8128.

13. Write a JavaScript function to compute the factors of a positive integer.

14. Write a JavaScript function to convert an amount to coins.
Sample function : amountTocoins(46, [25, 10, 5, 2, 1])
Here 46 is the amount. and 25, 10, 5, 2, 1 are coins.
Output : 25, 10, 10, 1.

15. Write a JavaScript function to compute the value of bn where n is the exponent and b is the bases. Accept b and n from the user and display the result.

16. Write a JavaScript function to extract unique characters from a string.
Example string : "thequickbrownfoxjumpsoverthelazydog"
Expected Output : "thequickbrownfxjmpsvlazydg"

17. Write a JavaScript function to get the number of occurrences of each letter in specified string.

18. Write a function for searching JavaScript arrays with a binary search.
Note : A binary search searches by splitting an array into smaller and smaller chunks until it finds the desired value.

19. Write a JavaScript function that returns array elements larger than a number.

20. Write a JavaScript function that generates a string id (specified length) of random characters.
Sample character list :
"ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789"

21. Write a JavaScript function to get all possible subset with a fixed length (for example 2) combinations in an array.
Sample array : [1, 2, 3] and subset length is 2
Expected output : [[2, 1], [3, 1], [3, 2], [3, 2, 1]]

22. Write a JavaScript function that accepts two arguments, a string and a letter and the function will count the number of occurrences of the specified letter within the string.

23. Write a JavaScript function to find the first not repeated character.
Sample arguments : 'abacddbec'
Expected output : 'e'

24. Write a JavaScript function to apply Bubble Sort algorithm.
Note : According to wikipedia "Bubble sort, sometimes referred to as sinking sort, is a simple sorting algorithm that works by repeatedly stepping through the list to be sorted, comparing each pair of adjacent items and swapping them if they are in the wrong order".
Sample array : [12, 345, 4, 546, 122, 84, 98, 64, 9, 1, 3223, 455, 23, 234, 213]
Expected output : [3223, 546, 455, 345, 234, 213, 122, 98, 84, 64, 23, 12, 9, 4, 1]

25. Write a JavaScript function that accept a list of country names as input and returns the longest country name as output.

Sample function : Longest_Country_Name(["Australia", "Germany", "United States of America"])
Expected output : "United States of America"

26. Write a JavaScript function to find longest substring in a given a string without repeating characters.

27. Write a JavaScript function that returns the longest palindrome in a given string.

28. Write a JavaScript program to pass a 'JavaScript function' as parameter.

29. Write a JavaScript function to get the function name.