**The .entries() method returns an array containing arrays of an object‘s key-value pairs in the following format: [ [key, value], [key, value], ... ].**

**const object = { foo: 'bar', baz: 42 };**

**console.log(Object.keys(object));**

**console.log(Object.entries(object));**

**Identify the output.**

**str="ABCXYZPQRJKL";**

**console.log(str.substring(2,9).substr(1,3));**

str="ABCXYZPQRJKL";

s1 = str.substring(2,9)

console.log(s1);

//CXYZPQR

s2= s1.substr(1,3);

console.log(s2);

//XYZ

**Example:**

console.log(2+2+"2" + 2 + 2)

**Output:**

**4222**

**Create a function that takes an array of objects (groceries) which calculates the total price and returns it as a number. A grocery object has a product, a quantity and a price.**

**Write java script program to check occurrence of a given character in to string entered by user. (For ex., If you check the number of occurrences of 'o' in the string 'school', the result is 2.)**

function countchar(str, letter) {

let count = 0;

// looping through the items

for (let i = 0; i < str.length; i++) {

// check if the character is at that position

if (str.charAt(i) == letter) {

count += 1;

}

}

return count;

}

test= countchar("Hello","h")

console.log(test)

**Example**

var a = true + true + true \* 3;

console.log(a) //true =1

**Output: 1+1+3 = 5**

**Which one of the following is correct output for the following given code:**

<script>

var a=3;

var b=a++;

var c=++a;

document.write(a,b,c);</script>

a=3;

b = a++ // assigned 3 value to b and then incremented value.

a = 4;

c = ++a // incremented first and then assigned so c=5

a=5

**a=5,b=3,c=5**

1. **Write a JavaScript to accept a number from user & check whether it is Armstrong number or not. (Hint: Armstrong number means the summation of cubes of all the three digits of the number should be exactly to the number)**

**E.g., 153= (1\*1\*1) +(5\*5\*5) +(3\*3\*3)**

1. **Write Java Script for find first 10 prime numbers**
2. **Write a JAVAScript to take 2 digit number and then separate these 2 digits, then multiply first digit by itself for second digit times.( for example, 23 should be separated as 2 and 3. 2 should multiply with itself 3 times).**
3. **Write a JAVAScript to print characters of a string at odd positions.(for example for the string India, I, d and a should get printed).**
4. **Write a JavaScript that uses function to calculate how many days are left in your birthday?**
5. **Write a program using Java Script, which sorts elements of an array in descending order.**
6. **Write a JavaScript program to print first N odd numbers divisible by 7**
7. **Write a function that takes 3 parameters, price, tax rate, balance, and prints yes in an alert box if someone has adequate balance to purchase an item at the specified price with the given tax rate. Otherwise, print out no in an alert box**
8. **Write a JavaScript to check input string is palindrome or not.**
9. **Write JavaScript code to print following pattern.  
   1  
   0 1  
   1 0 1   
   0 1 0 1   
   1 0 1 0 1**
10. **Write java script function to find maximum value among three different value entered by user**
11. **Write aJavaScript program which accepts N as input and print N Fibonacci numbers as list.**
12. **Write a JS to print all number from 1-100 by adhering following condition:  
    print only those number whose reverse of square and square of reverse are same. For ex. Square(12)=144, Reverse(144)=441 and Reverse(12)=21,Square(21)=441. so, final results of both the cases are same.Print all numbers following these cases between 1-100.**
13. **write a JS to find that given no. is lucky number or not.  
    i.e. Given no is lucky if sum of all its digit is equal to 1.  
    for ex. 7777 = 7+7+7+7 = 28 => 2+8=10 => 1+0=1**
14. **Write a JS to check that given no. is perfect no. or not. For ex. 6 is a perfect no., bcoz the factors of 6 are 1,2,3 & 6. So addition of all factors excluding no. itself is 6. So it is a perfect no. Likewise 28 is also a perfect no.**
15. **write a JS that find position of first occurance of vowel "a" and last occurance of vowel "a" in given word.return the string between them.for ex:- string is- "ajanta"**
16. **Write an ES6 function to be called on button click. Take one <div> with some text and no decoration initially. Take font size and style as default argument & pass background color and text color while passing the argument.**
17. **Write an ES6 function using rest operator to receive 1st 10 natural no.s. Compute addition of all odd and even no.s using for…of loop.**
18. **Write an ES6 script to find distance between two points using two point objects.**
19. **Write an ES6 script to pass two numbers in function as an argument and find all prime no.s between given two no.s. Assume first no< second no**
20. **Write an ES6 script to find 2nd largest no. from an array without using sorting.**
21. **Write an ES6 script to find GCD of two no.s passed as an argument.**
22. **Write a JavaScript that handles following mouse events. Add necessary elements. (i)JavaScript gives the key code for the key pressed.(ii)If the key pressed is “a”,”e”,”i”,”o”,”u”, the script should announce that vowel is pressed.(iii)When the key is released background should change to blue**
23. **Write a JS to copy contents of textfield to a paragraph in lowecase after entering string and losing the focus. Background of textfield should be converted to red after losing focus.**
24. **Design a registration form with username and password and email fields using HTML and JavaScript. Perform following validations. (i) Username field: minimum length5 and maximum length 10 characters, it should not start with special charcters (ii) Password field: it must contain at least one digit and at least one special character(iii)Email field: it must follow proper email syntax(for ex., xyz.pqr@mnp.co.in)**
25. **Design a form using HTML and JavaScript that asks the user to enter his date of birth and on clicking the Calculate Button it calls the function that calculates how many days are left in your birthday?**
26. **Write a JavaScript that uses function to calculate days left until next Christmas using JavaScript.**
27. **Write a JavaScript to handle following mouse events.i. If mouse clicked on heading, content of heading changed to “Hello World” with italic effect & 50px size.ii. If button named red is clicked then heading should change to red color & button named blue is clicked then heading should change to blue color.**
28. **Design an HTML form & write JavaScript code to validate the Name, Phone Number & E-mail address using Regular Expression. Name only allows letters & underscore; Phone number only allows digits & E-mail address allow all type of combination except only special character.**
29. **Write down java script code to check mobile number (mobile number should start with 9 or 8) and mail id (check @ and .)**
30. **Write a JavaScript that handles following mouse events. Add necessary elements.(i)If the mouse is over the heading, heading should change its text and color red and if the mouse goes out of the heading the text should return with same text as before and color should turn black.(ii) If mouse button is pressed, background color should be black. If mouse button is released up, background color should be cyan.**
31. **Write a JavaScript that handles following mouse events. Add necessary elements.(i) If the mouse is over the heading, heading should turn yellow and if the mouse goes out of the heading it should turn black.(ii) If find time button is clicked show time and date information. If button named “red” is clicked, background should change to red and If button named “green” is clicked, background should change to green.**
32. **Design a login form using HTML & JavaScript with following validations on username and password fields. 1. Password length must be 6 to 12 characters 2. Username should not start with \_, @ or number. 3. Both should not be blank.**
33. **Design a login form with username and password option using HTML and JavaScript. Perform following validations.(i) Username field: minimum length 6 characters, it should not have any special character or digits other than \_(ii) Password field: minimum length 8 characters and maximum length 12 characters, it must contain at least one digit and at least one special character from the set {\*,#,\_}.**
34. **write a javascript and HTMl code for login form with login and password fields. Password should be kept up to 5 characters only. Perform necessary validations.**
35. **Write an HTML form accepting an integer having 4-digits. Provide necessary validations using JavaScript. Input should not accept characters.**
36. **Write a program using HTML and java script to create basic calculator**