JavaScript Basics Tasks Answer

Question: Write JS Programs to Solve These Problems:

1. Check The Number Is Even or Odd

function isEven(*number*) {

    return number % 2 === 0 ? true : false;

}

console.log(isEven(4));

1. Fizz Buzz Game

function fizzBuzz(*num*) {

    for (let i = 1; i <= num; i++) {

        if (i % 3 === 0 && i % 5 === 0) {

            console.log("FizzBuzz");

        } else if (i % 3 === 0) {

            console.log("Fizz");

        } else if (i % 5 === 0) {

            console.log("Buzz");

        } else {

            console.log(i);

        }

    }

}

*// Example usage: Print numbers from 1 to 20 using Fizz Buzz rules*

fizzBuzz(20);

1. Reverse String for example welcome => emoclew

function reverseString(*str*) {

    return str.split('').reverse().join('');

}

*// Example usage*

console.log(reverseString("welcome")); *// Output: emoclew*

1. Compute Circle Area and Circumference

function computeCircle(*radius*) {

    const pi = Math.PI;

    const area = pi \* radius \* radius;

    const circumference = 2 \* pi \* radius;

    console.log(`Area of the circle: ${area.toFixed(2)}`);

    console.log(`Circumference of the circle: ${circumference.toFixed(2)}`);

}

*// Example usage*

computeCircle(5);  *// Replace with desired radius*

5- check two given numbers and return true if one of the number is

50 or if their sum is 50.

function checkNumber(*num1*, *num2*) {

    return num1 === 50 || num2 === 50 || num1 + num2 === 50;

}

*// Example usage*

console.log(checkNumber(50, 25));   *// true*

console.log(checkNumber(25, 26));   *// false*

console.log(checkNumber(20, 30));   *// true*

6- check from two given integers, whether one is positive and

another one is negative.

function checkSigns(*num1*, *num2*) {

    return (num1 > 0 && num2 < 0) || (num1 < 0 && num2 > 0);

}

*// Example usage*

console.log(checkSigns(5, -3));   *// true*

console.log(checkSigns(-5, 3));   *// true*

console.log(checkSigns(5, 3));    *// false*

7- check whether a given positive number is a multiple of 5 or a

multiple of 8.

function checkMultiples(*num*) {

    return num > 0 && (num % 5 === 0 || num % 8 === 0);

}

*// Example usage*

console.log(checkMultiples(10));   *// true (multiple of 5)*

console.log(checkMultiples(16));   *// true (multiple of 8)*

console.log(checkMultiples(12));   *// false (multiple of 4)*

console.log(checkMultiples(-10));  *// false (negative number)*

8- find the largest of three given integers

function findLargest(*num1*, *num2*, *num3*) {

    return Math.max(num1, num2, num3);

}

*// Example usage*

console.log(findLargest(10, 20, 15));   *// 20*

console.log(findLargest(-5, -3, -10));  *// -3*

9- Compute The sum of the numbers from 1 to 10

function sumNumbers() {

    let sum = 0;

    for (let i = 1; i <= 10; i++) {

        sum += i;

    }

    return sum;

}

*// Example usage*

console.log(sumNumbers());   *// 55 (1 + 2 + ... + 10)*

10- display the pattern like right angle triangle using an asterisk.

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function displayPattern(*rows*) {

    for (let i = 1; i <= rows; i++) {

        let row = '';

        for (let j = 1; j <= i; j++) {

            row += '\*';

        }

        console.log(row);

    }

}

*// Example usage*

displayPattern(5);

11- check whether a given number is positive or negative.

function checkPositiveOrNegative(*num*) {

    if (num > 0) {

        return `${num} is positive`;

    } else if (num < 0) {

        return `${num} is negative`;

    } else {

        return `${num} is neither positive nor negative (it's zero)`;

    }

}

*// Example usage*

console.log(checkPositiveOrNegative(5));    *// "5 is positive"*

console.log(checkPositiveOrNegative(-5));   *// "-5 is negative"*

console.log(checkPositiveOrNegative(0));    *// "0 is neither positive nor negative (it's zero)"*

12- store elements in an array and print it.

Test Data:

Input 10 elements in the array:

element - 0 : 1

element - 1 : 1

element - 2 : 2

function storeAndPrintElements() {

    const elements = [];

    for (let i = 0; i < 10; i++) {

        const input = prompt(`Enter element ${i}:`);

        elements.push(input);

    }

    console.log("Elements in the array:");

    console.log(elements);

}

*// Example usage: Will prompt for 10 inputs and display them in an array*

storeAndPrintElements();

13- print the sum of two numbers

num1 = Number(prompt("Enter first number: "))

num2 = Number(prompt("Enter second number: "))

console.log(num1+num2)

14- calculate the factorial of a given number

Test Data :

Input the number : 5

Expected Output :

The Factorial of 5 is: 120

function factorial(*num*) {

    let result = 1;

    for (let i = 2; i <= num; i++) {

        result \*= i;

    }

    return result;

}

*// Example usage*

const number = 5;

console.log(`The Factorial of ${number} is: ${factorial(number)}`);

*// Output: "The Factorial of 5 is: 120"*

15- Create Simple Calculator (+ , - , \* , /)

function calculator(*num1*, *num2*, *operator*) {

    switch (operator) {

        case '+':

            return num1 + num2;

        case '-':

            return num1 - num2;

        case '\*':

            return num1 \* num2;

        case '/':

            if (num2 !== 0) {

                return num1 / num2;

            } else {

                return "Cannot divide by zero";

            }

        case '%':

        return num1 % num2;

        default:

            return "Invalid operator";

    }

}

*// Example usage*

console.log(calculator(10, 5, '+'));   *// 15*

console.log(calculator(10, 5, '-'));   *// 5*

console.log(calculator(10, 5, '\*'));   *// 50*

console.log(calculator(10, 5, '/'));   *// 2*

console.log(calculator(10, 0, '/'));   *// "Cannot divide by zero"*

console.log(calculator(10, 5, '%'));   *// 0*

console.log(calculator(10, 5, '#')); *// Invalid operator*