JS Q34.js > ...

```
1   // 34. JavaScript Program to Illustrate Different Set Operations
2   const setA = new Set([1, 2, 3, 4]);
3   const setB = new Set([3, 4, 5, 6]);
4
5   // Union
6   const union = new Set([...setA, ...setB]);
7   console.log("Union:", union);
8
9   // Intersection
10  const intersection = new Set([...setA].filter(x => setB.has(x)));
11  console.log("Intersection:", intersection);
12
13  // Difference
14  const difference = new Set([...setA].filter(x => !setB.has(x)));
15  console.log("Difference:", difference);
16
```

Click to add a breakpoint

JS Q33.js > ...

```js
// 33. JavaScript Program to Set a Default Parameter Value for a Function
function greet(name = "Guest") {
    console.log(`Hello, ${name}!`);
}
greet();

```

JS Q32.js > ...

```javascript
// 32. Write a JavaScript code to enter weekday number and print day name.
function getDayName(weekday) {
    const days = ["Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday"];
    return weekday >= 1 && weekday <= 7 ? days[weekday - 1] : "Invalid input";
}
console.log(getDayName(3)); // Example usage

```

JS Q31.js > ...

```
// 31. JavaScript Program to Find the Sum of Natural Numbers
function sumOfNaturalNumbers(n) {
    let sum = 0;
    for (let i = 1; i <= n; i++) {
        sum += i;
    }
    return sum;
}
console.log(sumOfNaturalNumbers(10));

```

JS Q30.js > ...

```
1   // JavaScript Program to Check Armstrong Number
2   function isArmstrong(num) {
3       let sum = 0;
4       let temp = num;
5       while (temp > 0) {
6           let digit = temp % 10;
7           sum += Math.pow(digit, 3);
8           temp = Math.floor(temp / 10);
9       }
10      return sum == num;
11  }
12
13  let num = 153;
14  console.log(num + " is an Armstrong number: " + isArmstrong(num));
15
```

Click to add a breakpoint

JS Q29.js > ...

```
// JavaScript Program to Print the Fibonacci Sequence
function fibonacci(n) {
    let fib = [0, 1];
    for (let i = 2; i < n; i++) {
        fib[i] = fib[i - 1] + fib[i - 2];
    }
    return fib;
}

let num = 10;
console.log("Fibonacci sequence: " + fibonacci(num).join(", "));

```

JS Q28.js > ...

```
// JavaScript Program to Display the Multiplication Table
function multiplicationTable(n) {
    for (let i = 1; i <= 10; i++) {
        console.log(`${n} * ${i} = ${n * i}`);
    }
}

let num = 5;
multiplicationTable(num);

```

JS Q27.js > ...

```javascript
// JavaScript Program to Check Prime Number
function isPrime(num) {
    if (num <= 1) return false;
    for (let i = 2; i < num; i++) {
        if (num % i === 0) return false;
    }
    return true;
}

let num = 7;
console.log(num + " is prime: " + isPrime(num));

```

JS Q26.js > ...

```
// JavaScript Program to Find the Factorial of a Number
function factorial(n) {
    if (n === 0 || n === 1) {
        return 1;
    }
    return n * factorial(n - 1);
}

let num = 5;
console.log("Factorial of " + num + " is " + factorial(num));

```

JS Q25.js > ...

```js
// Write a JavaScript Program to Check if a number is Positive, Negative.
function checkNumber(num) {
    if (num > 0) {
        return "Positive";
    } else if (num < 0) {
        return "Negative";
    } else {
        return "Zero";
    }
}

let number = -5;
console.log(number + " is " + checkNumber(number));

```

JS Q24.js > ...

```
// Write a JavaScript Program to Convert Decimal to Binary
function decimalToBinary(decimal) {
    return decimal.toString(2);
}

let decimal = 10;
console.log("Binary: " + decimalToBinary(decimal));

```

JS Q23.js > ...

```javascript
// Write a JavaScript Program to Convert Celsius to Fahrenheit
function celsiusToFahrenheit(celsius) {
    return (celsius * 9/5) + 32;
}

let celsius = 25;
console.log(celsius + "°C is " + celsiusToFahrenheit(celsius) + "°F");

```

JS Q22.js > ...

```javascript
// Write a JavaScript Program to Swap Two Variables

function swapVariables(a, b) {
    let temp = a;
    a = b;
    b = temp;
    return [a, b];
}

let a = 5;
let b = 10;
[a, b] = swapVariables(a, b);
console.log("Swapped values: a = " + a + ", b = " + b);

```

Q21.html > ...

```html
<!-- Develop simple calculator for addition, subtraction, multiplication, and division operation using JavaScript. -->
<!DOCTYPE html>
<html>
<body>
    <h2>Simple Calculator</h2>
    <input type="number" id="num1" placeholder="Enter first number">
    <input type="number" id="num2" placeholder="Enter second number">
    <button onclick="performCalculation('+')">Add</button>
    <button onclick="performCalculation('-')">Subtract</button>
    <button onclick="performCalculation('*')">Multiply</button>
    <button onclick="performCalculation('/')">Divide</button>
    <p i
    <scr
        function performCalculation(operation) {
            let num1 = parseFloat(document.getElementById('num1').value);
            let num2 = parseFloat(document.getElementById('num2').value);
            let result;
            switch (operation) {
                case '+':
                    result = num1 + num2;
                    break;
                case '-':
                    result = num1 - num2;
                    break;
                case '*':
                    result = num1 * num2;
                    break;
                case '/':
                    result = num1 / num2;
                    break;
            }
            document.getElementById('result').innerText = "Result: " + result;
        }
    </script>
</body>
</html>
```

function performCalculation(operation: any): void

JS Q20.js > ...

```
// Write a JavaScript Program to Calculate the Area of a Triangle.
function calculateTriangleArea(base, height) {
    return 0.5 * base * height;
}

let base = 5;
let height = 10;
console.log("Area of Triangle: " + calculateTriangleArea(base, height));


```

JS Q19.js > ...

```
1   //Q19. Write a JavaScript Program to Find the Square Root.
2
3   function findSquareRoot(num) {
4       return Math.sqrt(num);
5   }
6
7   let number = 16;
8   console.log("Square Root: " + findSquareRoot(number));
9
```

JS Q18.js > ...

```
1    //Q18. Write a JavaScript Program to Add Two Numbers.
2    function addTwoNumbers(a, b) {
3        return a + b;
4    }
5    let num1 = 5;
6    let num2 = 10;
7    console.log("Sum: " + addTwoNumbers(num1, num2));
8
```

JS Q17.js

```
1    //Q.17 Write a JavaScript Program to Print Hello World.
2    console.log("Hello World");
3
```