

JavaScript has various operators that allow you to perform operations on variables and values. Here, I'll provide explanations and code examples for some of the most commonly used operators:

### 1. **\*\*Arithmetic Operators:\*\***

- These operators perform basic arithmetic operations.

```
```\njavascript\nlet a = 5;\nlet b = 2;\n\nconsole.log(a + b); // Addition: 7\nconsole.log(a - b); // Subtraction: 3\nconsole.log(a * b); // Multiplication: 10\nconsole.log(a / b); // Division: 2.5\nconsole.log(a % b); // Modulus (remainder): 1\nconsole.log(a ** b); // Exponentiation: 25\n```\n
```

### 2. **\*\*Comparison Operators:\*\***

- Used to compare values and return a boolean result.

```
```\njavascript\nlet x = 5;\nlet y = 10;\n\nconsole.log(x === y); // Equal to: false\nconsole.log(x !== y); // Not equal to: true\nconsole.log(x > y); // Greater than: false\nconsole.log(x < y); // Less than: true\nconsole.log(x >= y); // Greater than or equal to: false\nconsole.log(x <= y); // Less than or equal to: true\n```\n
```

### 3. **\*\*Logical Operators:\*\***

- Used to perform logical operations.

```
```\njavascript\nlet p = true;\nlet q = false;\n\nconsole.log(p && q); // Logical AND: false\nconsole.log(p || q); // Logical OR: true\nconsole.log(!p); // Logical NOT: false\n```\n
```

...

#### 4. **\*\*Assignment Operators:\*\***

- Used to assign values to variables.

```
``javascript
let num = 10;

num += 5; // Equivalent to: num = num + 5;
console.log(num); // 15

num -= 3; // Equivalent to: num = num - 3;
console.log(num); // 12

num *= 2; // Equivalent to: num = num * 2;
console.log(num); // 24
...

```

#### 5. **\*\*Unary Operators:\*\***

- Operate on a single operand.

```
``javascript
let counter = 5;

counter++; // Increment by 1
console.log(counter); // 6

counter--; // Decrement by 1
console.log(counter); // 5

let isTrue = true;

console.log(!isTrue); // Logical NOT: false
...

```

#### 6. **\*\*Ternary Operator:\*\***

- A shorthand for an `if-else` statement.

```
``javascript
let age = 20;

let result = (age >= 18) ? 'Adult' : 'Minor';
console.log(result); // Adult
...

```

