

JavaScript Operators

Theory Assignment

Question 1: What are the different types of operators in JavaScript? Explain with examples.

Arithmetic operators

Assignment operators

Comparison operators

Logical operators

Answer: Different Types of Operators in JavaScript:

1. Arithmetic Operators

Perform basic math operations.

Examples:

- **+** (Addition): $5 + 3 \rightarrow 8$
- **-** (Subtraction): $5 - 3 \rightarrow 2$
- ***** (Multiplication): $5 * 3 \rightarrow 15$
- **/** (Division): $5 / 2 \rightarrow 2.5$
- **%** (Modulus): $5 \% 2 \rightarrow 1$

2. Assignment Operators

Assign values to variables, with optional operations.

Examples:

- **=**: $x = 5 \rightarrow x \text{ is } 5$
- **+=**: $x += 3 \rightarrow x = x + 3$

- `--: x -= 2 → x = x - 2`

3. Comparison Operators

Compare values and return true or false.

Examples:

- `==: 5 == '5' → true (value match)`
- `===: 5 === '5' → false (strict match)`
- `>: 5 > 3 → true`
- `<: 5 < 3 → false`

4. Logical Operators

Combine or invert Boolean values.

Examples:

- `&&: true && false → false`
- `||: true || false → true`
- `!: !true → false`

Question 2: What is the difference between `==` and `===` in JavaScript?

Answer: The difference between `==` and `===` in JavaScript is:

- **`==` (Equality):** Compares values only, allowing type conversion.
Example: `5 == '5' → true`
- **`===` (Strict Equality):** Compares values and types without type conversion.
Example: `5 === '5' → false`

Use `===` for more accurate comparisons.