Operators

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

• Arithmetic operators

• Assignment operators

• Comparison operators

• Logical operators

Answer 1:

There are Different Types of JavaScript Operators:

* Arithmetic Operators
* Assignment Operators
* Comparison Operators (Relational Operators)
* Logical Operators
* Ternary Operators
* Type of Operators
* String Operators

Examples:

* **Arithmetic Operators:** (+,-,\*,/,%,\*\*,++,--)

let sum = 10 + 5; // 15

| **Operator** | **Description** | **Example** | **Result** |
| --- | --- | --- | --- |

|  |  |  |  |
| --- | --- | --- | --- |
| + | Addition | 5 + 3 | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
| - | Subtraction | 10 - 7 | 3 |

|  |  |  |  |
| --- | --- | --- | --- |
| \* | Multiplication | 4 \* 2 | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
| / | Division | 20 / 4 | 5 |

|  |  |  |  |
| --- | --- | --- | --- |
| % | Modulus (remainder) | 10 % 3 | 1 |

|  |  |  |  |
| --- | --- | --- | --- |
| \*\* | Exponentiation | 2 \*\* 3 | 8 |

|  |  |  |  |
| --- | --- | --- | --- |
| ++ | Increment | let x = 5; x++; | 6 |

|  |  |  |  |
| --- | --- | --- | --- |
| -- | Decrement | let y = 3; y--; | 2 |

* **Assignment Operators:** (+=,-=,\*=,/=,%=,\*\*=)

let x = 10;

x += 5; // x = 15

| **Operator** | **Description** | **Example** | **Result** |
| --- | --- | --- | --- |
| = | Assign | x=10 | 10 |
| += | Add and assign | x+=5 (x=x+5) | 15 |
| -= | Subtract and assign | x-=2 (x=x-2) | 8 |
| \*= | Multiply and assign | x\*=3 (x=x\*3) | 30 |
| /= | Divide and assign | x/=2 (x=x/2) | 5 |
| %= | Modulus and assign | x%=3 (x=x% 3) | 1 |

* **Comparision Operators:** (<,>,<=,>=,==,===,!=,!==)

console.log(10 > 5); // true

| **Operator** | **Description** | **Example** | **Result** |
| --- | --- | --- | --- |
| == | Equal to | 5 == "5" | True |
| === | Strictly equal | 5 === "5" | False |
| != | Not equal | 5 != "6" | True |
| !== | Strictly not equal | 5 !== "5" | True |
| > | Greater than | 10 > 5 | True |
| < | Less than | 5 < 10 | True |
| >= | Greater than or equal | 10 >= 10 | True |
| <= | Less than or equal | 5 <= 10 | True |

* **Logical Operators:** (&&,||,!)

console.log(true && false); // false

| **Operator** | **Description** | **Example** | **Result** |
| --- | --- | --- | --- |
| && | Logical AND | true && false | false |
| || | Logical OR | || |  |
| ! | Logical NOT | !true | false |

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

Answer 2: In JavaScript == & === are Comparison Operators(Relational Operators)

* ==(Equality):- Check only Value
* ===(Strict Equality):- Check Value and Data type
* The == Operators Compares the value of two variables after performing type conversion.
* The === Operators Compares the value of two variables Without performing type conversion.