Question 1: What are the different types of operators in JavaScript? Explain with examples. • Arithmetic operators • Assignment operators • Comparison operators • Logical operators

In JavaScript, operators are special symbols or keywords used to perform operations on values or variables. These operations can involve arithmetic, assignment, comparison, or logic, among others. Below is a detailed explanation of the four types of operators you mentioned, along with examples.

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**1:Arithmetic Operators**

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| Operator | Operator | Example | Result |
| + | Addition | **5 + 3** | 8 |
| - | Subtraction | 5 – 3 | 2 |
| \* | Multiplication | 5 \* 3 | 15 |
| / | Division | 6 / 2 | 3 |
| % | Modulo | |  | | --- | |  |  |  | | --- | | 5 % 3 | | 2 |
| ++ | Increment | |  | | --- | |  |  |  | | --- | | let a = 5; a++ | | A=6 |
| -- | |  | | --- | |  |  |  | | --- | | Decrement | | let a = 5; a-- | A=4 |
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2. **Assignment Operators**

Assignment operators are used to assign values to variables. In addition to the basic = operator, there are other shorthand assignment operators for combining operations.

| **Operator** | **Description** | **Example** | **Result** |
| --- | --- | --- | --- |
| = | Assigns the right-hand operand to the left-hand variable | let a = 5 | a = 5 |
| += | Adds and assigns the result to the left-hand variable | a += 3 (equivalent to a = a + 3) | a = 8 |
| -= | Subtracts and assigns the result to the left-hand variable | a -= 2 (equivalent to a = a - 2) | a = 6 |
| \*= | Multiplies and assigns the result to the left-hand variable | a \*= 2 (equivalent to a = a \* 2) | a = 12 |
| /= | Divides and assigns the result to the left-hand variable | a /= 3 (equivalent to a = a / 3) | a = 4 |
| %= | Calculates the remainder and assigns it to the left-hand variable | a %= 3 (equivalent to a = a % | a = 1 |
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