* 3OPERATORS: -

1. Arithmetic Operators:

| **Operator** | | **Description** | | **Example** |
| --- | --- | --- | --- | --- |
| + | | Addition | | a + b |
| - | | Subtraction | | a - b |
| \* | | Multiplication | | a \* b |
| / | | Division | | a / b |
| % | | Modulus (remainder) | | a % b |
|  |  | |

1. Relational Operators:

| **Operator** | | **Description** | **Example** |
| --- | --- | --- | --- |
| == | | Equal to | a == b |
| != | | Not equal to | a != b |
| > | | Greater than | a > b |
| < | | Less than | a < b |
| >= | | Greater than or equal | a >= b |
| <= | | Less than or equal | a <= b |
|  |

1. Logical Operators:

| **Operator** | **Description** | **Example** |
| --- | --- | --- |
| && | Logical AND (both true) | (a > 0 && b > 0) |
| || | Logical OR | - |
| ! | Logical NOT (inverts result) | !(a > b) |
|  |  |  |

1. Assignment Operators:

| **Operator** | **Description** | **Example** |
| --- | --- | --- |
| = | Assign | a = 5 |
| += | Add and assign | a += 3 |
| -= | Subtract and assign | a -= 2 |
| \*= | Multiply and assign | a \*= 4 |
| /= | Divide and assign | a /= 2 |
| %= | Modulus and assign | a %= 2 |

1. Bitwise Operators

| **Operator** | **Description** | **Example** |
| --- | --- | --- |
| & | Bitwise AND | a & b |
| ` | ` | Bitwise OR |
| ^ | Bitwise XOR | a ^ b |
| ~ | Bitwise NOT | ~a |
| << | Left shift | a << 2 |
| >> | Right shift | a >> 2 |

1. increment/decrement operators:

| **Operator** | **Description** | **Example** |
| --- | --- | --- |
| ++ | Increment by 1 | a++ or ++a |
| -- | Decrement by 1 | a-- or --a |

1. Conditional Operator:

| **Operator** | **Description** |
| --- | --- |
| condition? true value: false value | If the condition is true, return true\_value, else false value |