

Operators

01

Operators

02

Arithmetic

03

Logic & Relational

Operators

- | Operators are used to perform calculations and comparisons

- | Less than <

- | Subtraction -

- | They work on **operands**

↓ ↓
a + b

Arithmetic

Arithmetic Operators

+ Addition +=

- Subtraction -=

* Multiplication *=

/ Division /=

% Remainder %=

Usage

| Arithmetic Operators

```
var total = 3 + 3
```

| Arithmetic Assignment

```
a := 1      a := 1  
a += 3      a = a + 3
```

| Increment/Decrement

```
i++  
i--
```

| Arithmetic operators always return a number

Relational

Relational Operators

< Less Than

<= Less Than or Equal To

> Greater Than

>= Greater Than or Equal To

== Equal To

!= Not Equal To

Usage

- | Relational operators always return a boolean (true or false)

- | Comparison:

a > b

x == y

Logic

Logic Operators

&& And

|| Or

! Not

Usage

- | Logic operators can ensure multiple criteria are met
- | Always returns a boolean (true or false)

```
authorized && authenticated  
red || blue  
!heavy
```

Recap

- | Operators operate on **operands**
- | Arithmetic operators enable calculations
 - | Arithmetic assignment can calculate and assign to a variable in a single statement
- | Relational operators enable comparisons
- | Logic operators enable combinations and negation