

# 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	+=
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-	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

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< 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

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&& 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