**Arithmetic Operators**

[*Operators*](https://www.codecademy.com/resources/docs/powershell/operators) are used to perform specific operations on data, often stored in a variable. PowerShell offers multiple types of operators to manipulate data, including:

* Arithmetic Operators
* Assignment Operators
* Unary Operators
* Comparison Operators
* Logical Operators

**Arithmetic Operators**

First, let’s discuss arithmetic operators used to calculate numeric values. Arithmetic operators include:

* + (Addition): adds numbers and concatenates strings
* - (Subtraction): subtracts or negates numbers
* \* (Multiplication): multiplies numbers or copies strings a specified number of times
* / (Division): divides numbers
* % (Modulus): returns the remainder of a division operation

PS > 5 + 5  
10  
  
PS > 25 % 3  # 25/3 = 8 remainder 1  
1

Arithmetic operators are binary, meaning they require two operands to calculate the result. As we can see in the examples above, the syntax for arithmetic operators is <Operand\_1> <Arithmetic-Operator> <Operand\_2>. Operators are best utilized when used with [variables](https://www.codecademy.com/resources/docs/powershell/variables), as shown below.

PS > $number = 25  
PS > $number / 5  
5  
  
PS > $number = $number \* 3  
PS > $number  
75

**Arithmetic Operators on Strings**

PowerShell allows us to manipulate strings using the addition + and multiplication \* operators. The + operator concatenates strings, whereas the \* operator copies the string a specified number of times.

PS > $best\_learning\_platform = "Code" + "cademy"  
PS > $punctuation = "!" \* 3  
PS > $best\_learning\_platform + $punctuation  
Codecademy!!!

You can see two strings are joined to create the string "codecademy" and three exclamation points are made into a string by multiplying "!" by 3.