

## Module 3: Python Operators

**Python supports the following types of operators:**

- Arithmetic Operators
- Assignment Operators
- Relational Operators
- Logical Operators

**Arithmetic Operators:**

Operators	Description
+	Addition
-	Subtraction
*	Multiplication
/	Division
//	Floor Division
%	Modulus
**	Exponent

**Order of Operations:**

- When more than one operator appears in expression Python follows **P R E M D A S**.
- Operators with same precedence are evaluated left to right. (except Exponent operator which is right to left)

## Assignment Operators:

Operator	Description
=	Assignment
+=	Compound Add
-=	Compound Subtraction
*=	Compound Multiply
/=	Compound Divide
//=	Compound Floor Division
%=	Compound Modulus
**=	Compound Exponent

## Relational Operators:

Operators	Description
==	Equal to
!=	Not Equal to
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to

## Boolean Operators:

Operators	Description
and	Boolean and
or	Boolean or
not	Boolean not

- X and Y → if both X and Y are true then it returns True else False.
- X or Y → if either X or Y are true then it returns True else False.
- not X → if x is True it returns False else True



## Python Operator Summary:

Level	Operator	Description
18	()	Grouping
17	f()	Function call
16	[index:index]	Slicing
15	[]	Array Subscription
14	**	Exponential
13	~	Bitwise NOT
12	+ -	Unary plus / minus
11	* / %	Multiplication Division Modulo
10	+ -	Addition / Subtraction
9	<< >>	Bitwise Left Shift Bitwise Right Shift
8	&	Bitwise AND
7	^	Bitwise XOR
6		Bitwise OR
5	in , not in, is , is not <, <=, >, >= == !=	Membership Relational Equality Inequality
4	not	Boolean NOT
3	and	Boolean AND
2	or	Boolean OR
1	lambda	Lambda Expression