Arithmetic operators:

An arithmetic operator performs mathematical operations like addition, subtraction, division and multiplication.

Operator	Meaning	Example
+	Add two operands	>>>5+4 9
-	Subtract two operands	>>>6 - 4 2
*	Multiply two operands	>>>2*10 20
/	divide the left oferend by right operand	>>>5/2 2.5
%	which will give us remindar part	>>>5%3 2
//	which will give integer part	>>>5//3 1
**	raised to the power	>>>5**3 125

Comparisons operator

Operator	Description	Example
==	If two operands values are equal, then the condition becomes true.	>>> 5==3 False
!=	values of two operands are not equal, then condition becomes true.	>>>5!=3 True
>	If the value of left operand is greater than the value of right operand, then condition becomes true.	>>>4>3 True
<	If the value of left operand is less than the value of right operand, then condition becomes true.	>>>6<4 False
>=	**greater than equal:** If the value of left operand is greater than or equal to the value of right operand, then condition becomes true.	>>>5>=6 False
<=	**less than e**	>>>4<=6 True

Logical operators

- Logical operators is Boolean expressions such as and, or, not.
- It is just a conditional test that a result is either True or False.

operator	Description	Example
And	it two operands are true it become true	>>> True and True True >>>False and True False
Or	it two operands are non-zero then condition becomes true.	>>>True or False True >>>False or False False
Not	It is used to reverse the logical state of its operand.	>>>not True False >>>not not not True False

Assignment operator:

Operator	Description	Example
=	Assigns values from right side operands to left side operand	>>>x=20
+=	It adds right operand to the left operand and assign the result to left operand	>>>x+=20
-=	It subtracts right operand from the left operand and assign the result to left operand	>>>x-=20
*=	It multiplies right operand with the left operand and assign the result to left operand	>>>x*=50
/=	It divides left operand with the right operand and assign the result to left operand	>>>x/=50
%=	It takes modulus using two operands and assign the result to left operand	>>>x%=50
**=	Performs exponential (power) calculation on operators and assign value to the left operand	>>>x**=50
//=	It performs floor division on operators and assign value to the left operand	>>>x//=50

Membership operator

operator	Description	Example
in	Evaluates to true if it finds a variable in the specified sequence and false otherwise.	>>>x="python" >>>'p' in x True
not in	Evaluates to true if it does not finds a variable in the specified sequence and false otherwise.	>>>x="python" >>>'z' in x False

Bitwise operators

Operator	Description	Example
&	Operator copies a bit to the result if it exists in both operands	>>>10&20 0
|	It copies a bit if it exists in either operand.	>>>10|20 30
^	It copies the bit if it is set in one operand but not both.	>>>10^20 30
~	It is unary and has the effect of 'flipping' bits.	>>>~20 -21
<<	The left operands value is moved left by the number of bits specified by the right operand.	>>>10<<2 40
>>	The left operands value is moved right by the number of bits specified by the right operand.	>>>10>>2 2

Identity operators

Operator	Description	Example
is	Evaluates to true if the variables on either side of the operator point to the same object and false otherwise.	>>>x="hello" >>>y="hello" >>>x is y True
is not	Evaluates to false if the variables on either side of the operator point to the same object and true otherwise.	>>>x="hello" >>>y="hello" >>>x is not y False