

Precedence & Associativity OF OPERATORS IN PYTHON

PRECEDENCE

OPERATORS	Meaning
()	Parentheses
**	Exponent
*, /, //, %	Multiplication, Division, Floor Division, Modulus
+, -	Addition, Subtraction
==, !=, >, >=, <=	Comparisons
not	Logical NOT
and	Logical AND
or	Logical OR

The operator precedence in Python is listed in the above table. It is in descending order (upper group has higher precedence than the lower ones).

ASSOCIATIVITY

- We can see in the above table that more than one operator exists in the same group. These operators have the same precedence.
- When two operators have the same precedence, associativity helps to determine the order of operations.

- Associativity is the order in which an expression is evaluated that has multiple operators of the same precedence. Almost all the operators have left to right ~~or~~ associativity.
- For Example, $*$ and $//$ have the same precedence. Hence, if both of them are present in an expression, the left one is evaluated first.
- For the exponential operator $(**)$, associativity is from right to left.
Example,
 $2**3**8**4$
→ python will parenthesize the above codes as :
 $(2**(3**(8**4)))$
- Also, the not operator has right to left associativity.