

# Python Expression Operators

Table 5-2. Python expression operators and precedence

Operators	Description	Operators	Description
yield x	Generator function send protocol	x * y	Multiplication, repetition;
lambda args: expression	Anonymous function generation	x % y	Remainder, format;
x if y else z	Ternary selection (x is evaluated only if y is true)	x / y, x // y	Division: true and floor
x or y	Logical OR (y is evaluated only if x is false)	-x, +x	Negation, identity
x and y	Logical AND (y is evaluated only if x is true)	~x	Bitwise NOT (inversion)
not x	Logical negation	x ** y	Power (exponentiation)
x in y, x not in y	Membership (iterables, sets)	x[i]	Indexing (sequence, mapping, others)
x is y, x is not y	Object identity tests	x[i:j:k]	Slicing
x < y, x <= y, x > y, x >= y	Magnitude comparison, set subset and superset;	x(...)	Call (function, method, class, other callable)
x == y, x != y	Value equality operators	x.attr	Attribute reference
x   y	Bitwise OR, set union	(...)	Tuple, expression, generator expression
x ^ y	Bitwise XOR, set symmetric difference	[...]	List, list comprehension
x & y	Bitwise AND, set intersection	{...}	Dictionary, set, set and dictionary comprehensions
x << y, x >> y	Shift x left or right by y bits		
x + y	Addition, concatenation;		
x - y	Subtraction, set difference		

**Logic & bitwise** operators

**Comparison** operators

**Assignment/numeric** operators

**Object access** operators