

# C – Operator Precedence

Precedence	Operator	Description	Associativity	
1	++ --	Suffix/postfix increment and decrement	Left-to-right	
	()	Function call		
	[]	Array subscripting		
	.	Structure and union member access		
	->	Structure and union member access through pointer		
	(type){list}	Compound literal(C99)		
2	++ --	Prefix increment and decrement	Right-to-left	
	+ -	Unary plus and minus		
	! ~	Logical NOT and bitwise NOT		
	(type)	Type cast		
	*	Indirection (dereference)		
	&	Address-of		
	sizeof	Size-of		
	_Alignof	Alignment requirement(C11)		
3	* / %	Multiplication, division, and remainder	Left-to-right	
4	+ -	Addition and subtraction		
5	<< >>	Bitwise left shift and right shift		
6	< <=	For relational operators < and ≤ respectively		
	> >=	For relational operators > and ≥ respectively		
7	== !=	For relational = and ≠ respectively		
8	&	Bitwise AND		
9	^	Bitwise XOR (exclusive or)		
10		Bitwise OR (inclusive or)		
11	&&	Logical AND		
12		Logical OR		
13	?:	Ternary conditional		Right-to-Left
14	=	Simple assignment		
	+= -=	Assignment by sum and difference		
	*= /= %=	Assignment by product, quotient, and remainder		
	<<= >>=	Assignment by bitwise left shift and right shift		
	&= ^=  =	Assignment by bitwise AND, XOR, and OR		
15	,	Comma	Left-to-right	