

# C Operator Precedence

Precedence	Operator	Description	Associativity
<b>1</b>	++ --	Suffix/postfix increment and decrement	Left-to-right
	()	Function call	
	[]	Array subscripting	
	.	Structure and union member access	
	->	Structure and union member access through pointer	
<b>2</b>	++ --	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	
<b>3</b>	* / %	Multiplication, division, and remainder	Left-to-right
<b>4</b>	+ -	Addition and subtraction	
<b>5</b>	<< >>	Bitwise left shift and right shift	
<b>6</b>	< <=	For relational operators < and ≤ respectively	
	> >=	For relational operators > and ≥ respectively	
<b>7</b>	== !=	For relational = and ≠ respectively	
<b>8</b>	&	Bitwise AND	
<b>9</b>	^	Bitwise XOR (exclusive or)	
<b>10</b>		Bitwise OR (inclusive or)	
<b>11</b>	&&	Logical AND	
<b>12</b>		Logical OR	
<b>13</b> <sup>[note 1]</sup>	?:	Ternary conditional <sup>[note 2]</sup>	
<b>14</b>	=	Simple assignment	Right-to-left
	+= -=	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	
<b>15</b>	,	Comma	Left-to-right