

Operator Precedence and Associativity

Precedence	Operator	Description	Associativity
1	::	Scope resolution	Left-to-right
2	++ --	Suffix/postfix increment and decrement	
	()	Function call	
	[]	Array subscripting	
	. ->	Element selection by reference Element selection through pointer	
3	++ --	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	
	new, new[] delete, delete[]	Dynamic memory allocation Dynamic memory deallocation	
4	.x ->x	Pointer to member	Left-to-right
5	* / %	Multiplication, division, and remainder	
6	+ -	Addition and subtraction	

7	<< >>	Bitwise left shift and right shift	
8	< <=	For relational operators < and <= respectively	
	> >=	For relational operators > and >= respectively	
9	== !=	For relational = and != respectively	
10	&	Bitwise AND	
11	^	Bitwise XOR (exclusive or)	
12		Bitwise OR (inclusive or)	
13	&&	Logical AND	
14		Logical OR	
15	?:	Ternary conditional	Right-to-left
	=	Direct assignment (provided by default for C++ classes)	
	+= -=	Assignment by sum and difference	
	*= /= %=	Assignment by product, quotient, and remainder	
	<<= >>=	Assignment by bitwise left shift and right shift	
16	&= ^= =	Assignment by bitwise AND, XOR, and OR	
	throw	Throw operator (for exceptions)	
17	,	Comma	Left-to-right