

Prec/Ass	Operator	Description	Pattern
1 L->R	::	Global scope (unary)	::name
	::	Namespace scope (binary)	class_name::member_name
2 L->R	()	Parentheses	(expression)
	()	Function call	function_name(arguments)
	type()	Functional cast	type(expression)
	type{}	List init temporary object (C++11)	type{expression}
	[]	Array subscript	pointer[expression]
	.	Member access from object	object.member_name
	->	Member access from object ptr	object_pointer->member_name
	++	Post-increment	lvalue++
	--	Post-decrement	lvalue--
	typeid	Run-time type information	typeid(type) or typeid(expression)
	const_cast	Cast away const	const_cast<type>(expression)
	dynamic_cast	Run-time type-checked cast	dynamic_cast<type>(expression)
	reinterpret_cast	Cast one type to another	reinterpret_cast<type>(expression)
	static_cast	Compile-time type-checked cast	static_cast<type>(expression)
	sizeof...	Get parameter pack size	sizeof...(expression)
	noexcept	Compile-time exception check	noexcept(expression)
	alignof	Get type alignment	alignof(type)
3 R->L	+	Unary plus	+expression
	-	Unary minus	-expression
	++	Pre-increment	++lvalue
	--	Pre-decrement	--lvalue
	!	Logical NOT	!expression
	not	Logical NOT	not expression
	~	Bitwise NOT	~expression
	(type)	C-style cast	(new_type)expression
	sizeof	Size in bytes	sizeof(type) or sizeof(expression)
	co_await	Await asynchronous call (C++20)	co_await expression
	&	Address of	&lvalue
	*	Dereference	*expression
	new	Dynamic memory allocation	new type
	new[]	Dynamic array allocation	new type[expression]
	delete	Dynamic memory deletion	delete pointer
	delete[]	Dynamic array deletion	delete[] pointer
4 L->R	->*	Member pointer selector	object_pointer->*pointer_to_member
	.*	Member object selector	object.*pointer_to_member

5 L->R	*	Multiplication	expression * expression
	/	Division	expression / expression
	%	Remainder	expression % expression
6 L->R	+	Addition	expression + expression
	-	Subtraction	expression - expression
7 L->R	<<	Bitwise shift left / Insertion	expression << expression
	>>	Bitwise shift right / Extraction	expression >> expression
8 L->R	<=>	Three-way comparison (C++20)	expression <=> expression
9 L->R	<	Comparison less than	expression < expression
	<=	Comparison less than or equals	expression <= expression
	>	Comparison greater than	expression > expression
	>=	Comparison greater than or equals	expression >= expression
10 L->R	==	Equality	expression == expression
	!=	Inequality	expression != expression
11 L->R	&	Bitwise AND	expression & expression
12 L->R	^	Bitwise XOR	expression ^ expression
13 L->R		Bitwise OR	expression   expression
14 L->R	&&	Logical AND	expression && expression
	and	Logical AND	expression and expression
15 L->R		Logical OR	expression    expression
	or	Logical OR	expression or expression
16 R->L	throw	Throw expression	throw expression
	co_yield	Yield expression (C++20)	co_yield expression
	?:	Conditional	expression ? expression : expression
	=	Assignment	lvalue = expression
	*=	Multiplication assignment	lvalue *= expression
	/=	Division assignment	lvalue /= expression
	%=	Remainder assignment	lvalue %= expression
	+=	Addition assignment	lvalue += expression
	-=	Subtraction assignment	lvalue -= expression
	<<=	Bitwise shift left assignment	lvalue <<= expression
	>>=	Bitwise shift right assignment	lvalue >>= expression
	&=	Bitwise AND assignment	lvalue &= expression
	=	Bitwise OR assignment	lvalue  = expression
	^=	Bitwise XOR assignment	lvalue ^= expression
17 L->R	,	Comma operator	expression, expression