

Java Operator Precedence Table

Precedence	Operator	Type	Associativity
15	() [] .	Parentheses Array Subscript Member selection	Left to Right
14	++ --	Unary post-increment Unary post-decrement	Right to left
13	++ -- + - ! ~ (<i>type</i>)	Unary pre-increment Unary pre-decrement Unary plus Unary minus Unary logical negation Unary bitwise complement Unary type cast	Right to left
12	* / %	Multiplication Division Modulus	Left to right
11	+ -	Addition Subtraction	Left to right
10	<< >> >>>	Bitwise left shift Bitwise right shift with sign extension Bitwise right shift with zero extension	Left to right
9	< <= > >= instanceof	Relational less than Relational less than or equal Relational greater than Relational greater than or equal Type comparison (objects only)	Left to right
8	== !=	Relational is equal to Relational is not equal to	Left to right
7	&	Bitwise AND	Left to right
6	^	Bitwise exclusive OR	Left to right
5		Bitwise inclusive OR	Left to right
4	&&	Logical AND	Left to right
3		Logical OR	Left to right
2	&:	Ternary conditional	Right to left
1	= += -= *= /= % =	Assignment Addition assignment Subtraction assignment Multiplication assignment Division assignment Modulus assignment	Right to left

Larger number means higher precedence

Type	Storage	Range of Values
byte	8 bits	-128 to 127
short	16 bits	-32,768 to 32,727
int	32 bits	-2,147,483,648 to 2,147,483,647
long	64 bits	-9×10^{18} to 9×10^{18}
float	32 bits	$\pm 10^{-45}$ to $\pm 10^{38}$, 7 significant digits
double	64 bits	$\pm 10^{-324}$ to $\pm 10^{308}$, 15 significant digits

Type	Description	Example of Literals
int	integers (whole numbers)	42, 60634, -8, 0
double	real numbers	0.039, -10.2, 4.2E+72
char	single characters	'a', 'B', '&', '6'
boolean	logical values	true, false