Notes:

• C++ Standard: 4.7 Integral conversions: 4:

If the destination type is bool, see 4.12. If the source type is bool, the value false is converted to zero and the value true is converted to one.

• C++ Standard: 4.12 Boolean conversions:

A prvalue of arithmetic, unscoped enumeration, pointer, or pointer to member type can be converted to a prvalue of type bool. A zero value, null pointer value, or null member pointer value is converted to false; any other value is converted to true. For direct-initialization (8.5), a prvalue of type std::nullptr_t can be converted to a prvalue of type bool; the resulting value is false.

true	false	bool(-2)	bool(-1)	bool(0)	bool(1)	bool(2)	bool(3)
1	0						

bool('\0')	bool('y')	bool('n')	bool("yes")	bool("no")	bool("hello")

bool(-5.7)	bool(0.0)	bool(5.7)	bool(42.8)		

a	b	a == b	a != b	a && b	a b
0	0				
0	1				
1	0				
1	1				

а	b	a == b && 'y'	a == b 'y'	a != b && 'y'	a != b 'y'
0	0				
0	1				
1	0				
1	1				

a	b	С	a==b && a:	==c	a==b	a==c	a!=b	& &	a!=c	a!=b		a!=c
0	0	0										
0	0	1										
0	1	0										
0	1	1										
1	0	0										
1	0	1										
1	1	0										
1	1	1										