

Order of Operations (for Logical Operators)

Just like how math operators ($*$, $/$, $+$, $-$) have an order that they are evaluated in, ie. multiplication is evaluated before addition, so do logical operators!

The `!` operator will be evaluated first, then `&&`, and finally `||`. If you have a bunch of the same operations in an expression, like multiple `||` combinations, then you just operate from left to right.

To *change the order of operations* you can surround expressions in parentheses because **parentheses will be evaluated before anything else**.

So, the order of operations is:

1. Parentheses
2. NOT `!`
3. AND `&&`
4. OR `||`

For the expression:

```
!true || false && true
```

This will have the NOT `!` operator evaluated first, so this simplifies to:

```
false || false && true
```

Then the AND `&&` operator will be evaluated. The combination `false && true` equals `false`, and the whole expression becomes:

```
false || false
```

Finally the OR `||` operator will be evaluated, and the whole expression evaluates to `false`.