De Morgan's Laws

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- Rules used to **negate** boolean tests.
- Useful when you want the **opposite** of an existing test.

Original Expression	**Negated** Expression	**Simplified Negated** Expression
`a && b`	`!(a && b)`	`!a || !b`
`a || b`	`!(a || b)`	`!a && !b`

→ **Negate the whole thing**
→ **Flip the logical operator**
→ **Distribute the negation**

Q: Negate `(x > y) && (y > z)`

```
!((x > y) && (y > z))
 !(x > y) || !(y > z)
   x <= y || y <= z
```

Q: Negate `(x == y) || (x <= z)`

```
!((x == y) || (x <= z))
! (x == y) && !(x <= z)
    x != y && x > z
```