# Logic symbols

| Symbol | Symbol Name | Meaning / definition | Example |
|---|---|---|---|
| · | And | and | $x \cdot y$ |
| ∧ | caret / circumflex | and | $x \wedge y$ |
| & | ampersand | and | $x \, \& \, y$ |
| + | plus | or | $x + y$ |
| ∨ | reversed caret | or | $x \vee y$ |
| \| | vertical line | or | $x \mid y$ |
| $x'$ | single quote | not - negation | $x'$ |
| $x$ | bar | not - negation | $x$ |
| ¬ | not | not - negation | $\neg \, x$ |
| ! | exclamation mark | not - negation | $! \, x$ |
| ⊕ | circled plus / oplus | exclusive or - xor | $x \oplus y$ |
| ~ | tilde | negation | $\sim x$ |
| ⇒ | implies | | |
| ⇔ | equivalent | if and only if (iff) | |
| ↔ | equivalent | if and only if (iff) | |
| ∀ | for all | | |

| Symbol | Symbol Name | Meaning / definition | Example |
|--------|-------------|----------------------|---------|
| ∃ | there exists | | |
| ∄ | there does not exists | | |
| ∴ | therefore | | |
| ∵ | because / since | | |