Truth tables of connectives

XOR

φ	ψ	$\varphi \propto \psi$
1	1	0
1	0	1
0	1	1
0	0	0

Implication

$$\begin{array}{c|cccc} \varphi & \psi & \varphi \to \psi \\ \hline 1 & 1 & 1 \\ 1 & 0 & 0 \\ 0 & 1 & 1 \\ 0 & 0 & 1 \\ \end{array}$$

Equivalence

$$\begin{array}{c|cccc} \varphi & \psi & \varphi \leftrightarrow \psi \\ \hline 1 & 1 & 1 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \\ \end{array}$$

Negation

$$\begin{array}{c|c}
\varphi & \neg \varphi \\
\hline
1 & 0 \\
0 & 1
\end{array}$$

Conjunction

$$\begin{array}{c|cccc} \varphi & \psi & \varphi \wedge \psi \\ \hline 1 & 1 & 1 \\ 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \\ \end{array}$$

Disjunction

$$\begin{array}{c|c|c|c} \varphi & \psi & \varphi \lor \psi \\ \hline 1 & 1 & 1 \\ 1 & 0 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 0 \\ \end{array}$$