

Truth Tables

Mathematics

The four core connectives on all four assignments of p and q .

The whole of propositional logic, in four rows.

p, q	$p \wedge q$	$p \vee q$	$p \rightarrow q$
T, T	T	T	T
T, F	F	T	F
F, T	F	T	T
F, F	F	F	T

$p \rightarrow q$ is false only when p is true and q is false. A false premise makes the implication true, which is where intuition gives out.