

Conditional Statements and Truth Tables

Thursday, September 13, 2018 12:52 PM

Truth table for P and Q $P \wedge Q$

P	Q	$P \wedge Q$
T	T	T
T	F	F
F	T	F
F	F	F

exactly one True
in the final column

P	Q	$P \vee Q$
T	T	T
T	F	T
F	T	T
F	F	F

exactly one false in last column.

P	Q	$P \rightarrow Q$
T	T	T
T	F	F
F	T	T
F	F	T

exactly one false

P	$\sim P$
T	F
F	T

Switch the values from the first column.

Use the $P \wedge Q$

P	Q	$P \wedge Q$	$\sim(P \wedge Q)$
T	T	T	F
T	F	F	T
F	T	F	T
F	F	F	T

P	Q	$\sim P$	$\sim Q$	$\sim P \vee \sim Q$
T	T	F	F	F
T	F	F	T	T
F	T	T	F	T
F	F	T	T	T