

TRUTH TABLES INTERACTIVE REVISION

\wedge	AND	True when both true
\vee	OR	True when one or both is true
$\underline{\vee}$	exclusive OR	True when only one is true
\neg	NOT	negation
\Rightarrow	IMPLICATION	Everything is true except True False
\Leftrightarrow	EQUIVALENCE	True if have same value, False if different

p	q	\wedge	\vee	$\underline{\vee}$	\Rightarrow	\Leftrightarrow
T	T					
T	F					
F	T					
F	F					

1.

p	q	$\neg p$	$\neg q$	$\neg p \wedge \neg q$
T	T			
T	F			
F	T			
F	F			

2.

p	q	$\neg q$	$p \vee \neg q$

3.

p	q	$p \wedge q$	$\neg(p \wedge q)$	$\neg p$	$\neg q$	$\neg p \vee \neg q$
T	T					
T	F					
F	T					
F	F					

4.

p	q	$\neg p$	$\neg q$	$p \vee q$	$\neg p \vee \neg q$	$(p \vee q) \Rightarrow (\neg p \vee \neg q)$
T	T					
T	F					
F	T					
F	F					

5.

p	q	$\neg p$	$p \Rightarrow q$	$\neg p \Leftrightarrow q$
T	T			
T	F			
F	T			
F	F			

6.

p	q	r	$p \Rightarrow q$	$(p \Rightarrow q) \wedge p$	q	$(p \Rightarrow q) \wedge p \Rightarrow q$
T	T	T				
T	T	F				
T	F	T				
T	F	F				
F	T	T				
F	T	F				
F	F	T				
F	F	F				

7.

p	q	r	$p \Rightarrow q$	$q \Rightarrow r$	$\neg r$	$(p \Rightarrow q) \wedge (q \Rightarrow r) \wedge \neg r$
T	T	T				
T	T	F				
T	F	T				
T	F	F				
F	T	T				
F	T	F				
F	F	T				
F	F	F				