MAT 2345 Section 1.2 Worksheet — Complete the Truth Tables

Contingency: a proposition which is neither a tautology nor a contradiction.
Logically Equivalent: compound propositions which always have the same truth value.

p	$\neg p$	$p \vee \neg p$	$p \wedge \neg p$
1			
0			

p	q	$\neg(p \vee q)$	$\neg p$	$\neg q$	$\neg p \wedge \neg q$
1	1				
1	0				
0	1				
0	0				

p	q	$p \wedge q$	$\neg\ [p \rightarrow (\neg q)]$
1	1		
1	0		
0	1		
0	0		

p	q	$p \vee q$	$(\neg p) \rightarrow q$
1	1		
1	0		
0	1		
0	0		

p	q	r	$p \vee (q \wedge r)$	$(p \vee q) \wedge (p \vee r)$
1	1	1		
1	1	0		
1	0	1		
1	0	0		
0	1	1		
0	1	0		
0	0	1		
0	0	0		