

# Problem 1.1 (L1)

a)

b)

c)

# Problem 1.2 (L1)

a)

b)

c)

**Problem 2 (L.2)**

### Problem 3 (L.3)

a)

Row #	p	q	$p \rightarrow q$	$p \vee q$	$\neg p \rightarrow q$	$(p \rightarrow q) \vee (\neg p \rightarrow q)$	$\neg p \rightarrow \neg q$	$(p \vee q) \rightarrow (\neg p \rightarrow \neg q)$
1	T	T						
2	T	F						
3	F	T						
4	F	F						

b)

Problem 4.1 (L.4)

☐ tautology ☐ not a tautology

# Problem 4.2 (L.4)

a)

☐ equivalent ☐ not equivalent

b)

☐ equivalent ☐ not equivalent