

Josiah Kim

PHIL 12

Professor Agler

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Exercise Set #2

A)

1. $P \wedge (R \wedge S)$

1	$P \wedge (R \wedge S)$	P
2	P	$1 \wedge D$
3	$R \wedge S$	$1 \wedge D$
4	R	$3 \wedge D$
5	S	$3 \wedge D$
	O	

2. $P \vee (R \vee D)$

1	$P \vee (R \vee D)$		P
2	P	$R \vee D$	$1 \vee D$
	O		
3	R	D	$2 \vee D$
	O	O	

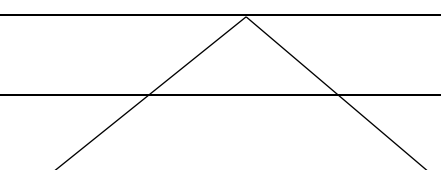
3. $P \vee Q, \neg P \wedge Q$

1	$P \vee Q$		P
2	$\neg P \wedge Q$		P
3	$\neg P$		$2 \wedge D$
4	Q		$2 \wedge D$
5	P	Q	$1 \vee D$
	X	O	

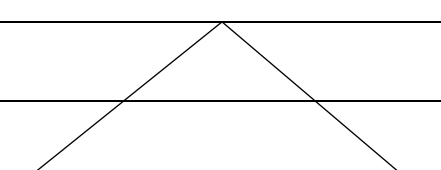
Exercise Set #3

A)

1. $P \rightarrow R, \neg(P \rightarrow Z)$; open tree

1	$P \rightarrow R$	P
2	$\neg(P \rightarrow Z)$	P
3	P	$2 \neg \rightarrow D$
4	$\neg Z$	$2 \neg \rightarrow D$
		
5	$\neg P$ R	$1 \rightarrow D$
	X O	

3. $\neg(P \wedge M), P$; open tree

1	$\neg(P \wedge M)$	P
2	P	P
		
3	$\neg M$ $\neg P$	$1 \neg \wedge D$
	O X	

5. $P \wedge \neg L, \neg(P \rightarrow L), Z \vee F$; open tree

1	$P \wedge \neg L$	P
2	$\neg(P \rightarrow L)$	P
3	$Z \vee F$	P
4	P	$1 \wedge D$
5	$\neg L$	$1 \wedge D$
6	P	$2 \wedge D$
7	$\neg L$	$2 \wedge D$
8	Z	$3 \vee D$
	O	O

Exercise Set #4

A)

1. $A \wedge B, B \wedge C, C \wedge D$; open tree

1	$A \wedge B$	P
2	$B \wedge C$	P
3	$C \wedge D$	P
4	A	$1 \wedge D$
5	B	$1 \wedge D$
6	B	$2 \wedge D$
7	C	$2 \wedge D$
8	C	$3 \wedge D$
9	D	$3 \wedge D$
	O	

3. $A \wedge B, B \wedge \neg C, C \wedge D$; closed tree

1	$A \wedge B$	P
2	$B \wedge \neg C$	P
3	$C \wedge D$	P
4	A	$1 \wedge D$
5	B	$1 \wedge D$
6	B	$2 \wedge D$
7	$\neg C$	$2 \wedge D$
8	C	$3 \wedge D$
9	D	$3 \wedge D$
	X	

5. $A \rightarrow B, B \rightarrow C, C \rightarrow D$; open tree

1	$A \rightarrow B$								P
2	$B \rightarrow C$								P
3	$C \rightarrow D$								P
4									$1 \rightarrow D$
5									$2 \rightarrow D$
6									$3 \rightarrow D$
	O	O	X	O			X	O	

