## Review of Pairs of Statements/First Rules of Inference Examples with fill-in-the-blanks

The pair of statements below is best described as:

- a. consistent
- b. inconsistent
- c. logically contradictory
- d. logically equivalent

1.\_\_\_\_

K⊃L	~ L ⊃ ~ K
TTT	FTTFT
TFF	TFFFT
FTT	FTTTF
FTF	TFTTF

2.\_\_\_\_

$$K\supset L$$
 $TTT$ 
 $TFFT$ 
 $TTTFF$ 
 $FTF$ 
 $FTF$ 

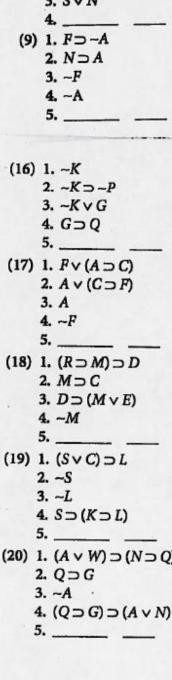
3

K v L	K · L
TTT	TTT
TTF	TFF
FTT	FFT
FFF	FFF

4.\_\_\_\_

(1) 1. G⊃F		
2. ~F		
3	-	
(2) 1. S 2. S⊃M		
3		
(3) 1. R⊃D 2. E⊃R		
3		. *
(4) 1. B V C		
2. ~B 3		
(5) 1. N		
2. N∨F	1	
3. N⊃K 4		
*		
(10) 1. H⊃A 2. A		
3. A v M		
4. G⊃H		
5		
2. W		
3. B⊃T		
4. W⊃A 5		
(12) 1. K⊃~R		
2. ~R 3. R \strict S		
3. R ∨ S 4. R ⊃ T		
5		
(13) 1. ~C⊃~F		
2. L⊃F 3F		
4. F v ~L		
5		
(14) 1. N⊃~E 2. ~S		
3. ~E∨~S		
4. ~S \times N 5		
(15) 1. ~R⊃~T	-	
2. ~T∨B		
3. C⊃~R 4. ~C		
5		

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(6) 1. ~J v P
     2. ~J
     3. S⊃J
     4. ___
★(7) 1. H⊃D
     2. F⊃T
     3. F⊃H
     4. ___
 (8) 1. S\supset W
     2. -5
     3. S v N
     4. ___
 (9) 1. F⊃~A
     2. N⊃A
     3. ~F
     4. ~A
     5. ___
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(20) 1.  $(A \lor W) \supset (N \supset Q)$ 4.  $(Q \supset G) \supset (A \lor N)$ 

In these problems, fill in the blanks with one of the four Rules of Inference we discussed in class:

MP Modus Ponens

MT Modus Tollens

**HS** Hypothetical Syllogism

**DS** Disjunctive Syllogism