

3.3 A - The two of us are both knights  
 B - A is a knave

P = A is a knight  
 $\neg P$  = A is a knave

Q = B is a knight  
 $\neg Q$  = B is a knave

Friday month of Apr.

Case 1:

Knight, Knight

~~P & Q~~  
 W & F

i)  $A = P \wedge Q$   
 ii)  $B = \neg P$

i)  $T \wedge T = T$  ✓

does not hold

ii)  $F \neq T$  ✗ ~~holds~~

Case 2:

Knight, Knave

i)  $P \wedge Q$

$T \wedge T = T$

ii)  $\neg P$

does not hold

$F \neq T$



Knave, Knight

$$i) P \wedge Q = F$$

$$F \wedge T = F$$

$$ii) \neg P = T$$

$$T = T$$

holds

Case 4 Knave, Knave

$$i) P \wedge Q = F$$

$$F \wedge F = F$$

$$F = F$$

$$ii) \neg P = F$$

$$T \neq F$$

Does not hold