

1.3 cont.

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## Truth Values of Conjunction.

P	Q	$P \wedge Q$
T	T	T
T	F	F
F	T	F
F	F	F

a Statement can  
Be either T or F  
Likewise so can  
the Conjunction

\* Conjunction is only True  
if both parts are True

Construct a T.T. for  $P \wedge \sim q$   
reference Table 1

$P$	$q$	$\sim q$	$P \wedge \sim q$
T	T	F	F
T	F	T	T
F	T	F	F
F	F	T	F

Construct T.T. for  $\sim p \wedge \sim q$   
reference Table 2

$p$	$q$	$\sim p$	$\sim q$	$\sim p \wedge \sim q$
T	T	F	F	F
T	F	F	T	F
F	T	T	F	F
F	F	T	T	T

ex1) Mr. G. Teaches Math  $2+2=5$

$$T \wedge F = \underline{\underline{F}}$$

ex2)

P  $\wedge$  q

$$T \wedge T = \underline{\underline{T}}$$

— where  $p \rightarrow 2+2=4$   
—  $q \rightarrow$  Mr. G. Teaches Math

# O.T.L.

① pg 10-11: Written:  
1-18 (all)  $\rightarrow$  Find Truth Value  
Only!

② pg 11: Written: 19-22  
Copy The Table & Fill in  
From Book

⑤  $r \wedge \sim p$  where  $r = \underline{\underline{T}}$   
 $= T \wedge \sim T$   $p = \underline{\underline{T}}$   
 $= T \wedge F$   
 $= \underline{\underline{F}}$