

2.1 Truth Tables

Name: _____

Conditional		
p	q	$p \rightarrow q$

- ▶ A conditional statement is **false** only with
 - ▶ True hypothesis
 - ▶ False conclusion
 - ▶ This breaks the contract

Converse		
p	q	$q \rightarrow p$

Inverse				
p	q	$\sim p$	$\sim q$	$\sim p \rightarrow \sim q$

Contrapositive				
p	q	$\sim q$	$\sim p$	$\sim q \rightarrow \sim p$

$p \rightarrow \sim q$			
p	q	$\sim q$	$p \rightarrow \sim q$

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35. $\sim p \rightarrow q$

$\sim p \rightarrow q$			
p	$\sim p$	q	$\sim p \rightarrow q$

2.1 Truth Tables

Name: _____

36. $\sim q \rightarrow p$

$\sim q \rightarrow p$			
p	q	$\sim q$	$\sim q \rightarrow p$

37. $\sim(\sim p \rightarrow \sim q)$

$\sim(\sim p \rightarrow \sim q)$					
p	q	$\sim p$	$\sim q$	$\sim p \rightarrow \sim q$	$\sim(\sim p \rightarrow \sim q)$

38. $\sim(p \rightarrow \sim q)$

$\sim(p \rightarrow \sim q)$				
p	q	$\sim q$	$p \rightarrow \sim q$	$\sim(p \rightarrow \sim q)$

39. $q \rightarrow \sim p$

$q \rightarrow \sim p$			
p	q	$\sim p$	$q \rightarrow \sim p$

40. $\sim(q \rightarrow p)$

$\sim(q \rightarrow p)$			
p	q	$q \rightarrow p$	$\sim(q \rightarrow p)$