

1. Given $p: x < 4$
 $q: x > 1$

Let the domain = {1, 2, 3, 4, 5}

- a) For what values of x is $p \wedge q$ true? _____
 b) For what values of x is $p \vee q$ true? _____

2. Given $p: \text{I eat cold cereal for breakfast.}$
 $q: \text{I play football.}$

Write the statement represented by each of the following:

- a) $\sim p$ _____
 b) $p \wedge q$ _____
 c) $p \wedge \sim q$ _____
 d) $\sim p \wedge q$ _____
 e) $p \vee q$ _____
 f) $p \vee \sim q$ _____

3. Create the following truth table for the statements given in problem 2.

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