

Math 099 - Assignment 5

October 1, 2018

Name key
Score _____

Show all work to receive full credit. Supply explanations when necessary. This assignment is worth 5 points.

1. Suppose p is the statement " $x = -5$ " and q is the statement " $x^2 = 25$." Write each statement in words.

(a) $\sim p \wedge q$ $x \neq -5$ AND $x^2 = 25$

(b) $\sim p \vee \sim q$ $x \neq -5$ OR $x^2 \neq 25$

2. Referring to the statements p and q from above, suppose p is false and q is true. Determine the truth value of each compound statement. Explain or show work.

(a) $p \wedge q$ F AND T IS F

(b) $p \vee q$ F OR T IS T

(c) $\sim q \wedge \sim p$ F AND T IS F

(d) $p \vee \sim p$ F OR T IS T

3. Say whether each compound statement in problem 2 is a conjunction or disjunction.

a) Conj.

b) Disj.

c) Conj.

d) Disj.

p is F
q is T