

Math 096 - Quiz 1

January 25, 2017

Name key Score _____

Show all work to receive full credit. Supply explanations when necessary. YOU MUST WORK INDIVIDUALLY.

1. (1 point) A set is defined by listing all the elements of the set, such as $A = \{1, 2, 3, 4, 5\}$. What is the name of this type of notation for describing sets?

ROSTER NOTATION

2. (4 points) Determine whether each sentence is a statement.

(a) Bill Gates is the founder of Microsoft.

STATEMENT

(b) Be cool!

NOT A STATEMENT

(c) $6 + 7 = 15$

STATEMENT

(d) When will President Trump fire Sean Spicer?

NOT A STATEMENT

3. (5 points) Let $P =$ "Today is Wednesday." Let $Q =$ "That dog bites."

(a) Write the statement $\sim P$.

TODAY IS NOT WEDNESDAY.

(b) Write the conjunction of P and Q .

TODAY IS WEDNESDAY AND THAT DOG BITES.

(c) Write the disjunction of P and Q .

TODAY IS WEDNESDAY OR THAT DOG BITES.

(d) Assume P is true and Q is false. Is the compound statement " P and Q " true or false?

T AND F IS FALSE

(e) Assume P is true and Q is false. Is the compound statement " P or Q " true or false?

T OR F IS TRUE