

Math 112 - Quiz 10

October 4, 2018

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary. This quiz is worth 5 points. YOU MUST WORK INDIVIDUALLY.

1. (2 points) Let p be the statement "Sophie has been arrested" and let q be the statement "Bubba has never been arrested." Write each statement in symbolic form.

(a) If Sophie has not been arrested, then Bubba has not been arrested.

$\sim p$

q

$$\boxed{\sim p \rightarrow q}$$

(b) Either Sophie or Bubba has been arrested.

$$\boxed{p \vee \sim q}$$

2. (2 points) Write the negation of each statement.

(a) Some of my friends have new iPhones.

NONE OF MY FRIENDS HAVE NEW IPHONES.

(b) No one gets out on time.

SOME ONE GETS OUT ON TIME.

3. (1 point) Suppose p is a false statement and r is a true statement. What is the truth value of $p \vee \sim r$?

→ F OR NOT TRUE = F OR F
= $\boxed{\text{FALSE}}$