Quiz 3 (8 points total) Math 017, Spring 2016

Name: Section:

Problem 1 Determine if the following argument is valid or invalid:

If it is a duck, then it quacks.

It is not a duck.

It does not quack.

(a) Valid

(b) Invalid

(c) Neither

(d) Cannot be determined.

Problem 2 Given the following premises, which conclusion yields a valid argument?

$$p \to q$$
$$\sim s \to r$$
$$r \to p$$

(a) $s \to \sim q$

(b) $q \to s$

(c) $s \to q$

(d) $\sim q \to s$

Problem 3

If I have a million dollars, then I will buy you a monkey.
I didn't buy you a monkey.

I don't have a million dollars.

(a) Valid

(b) Invalid

(c) Neither

(d) Cannot be determined.

Problem 4 Let $d(x)$ represent the statement "x is a dog" and $w(x)$ represent "x is white." Which of the following represents "Some dogs are not white?"

(a) $\exists x[d(x) \wedge \sim w(x)]$

(b) $\exists x[d(x) \rightarrow \sim w(x)]$

(c) $\forall x[d(x) \rightarrow \wedge \sim w(x)]$

(d) $\forall x[d(x) \rightarrow \sim w(x)]$

Feedback:

1. Any comments (on lectures, homework, quizzes, course, me, etc.)?