

Math 1303 - Math in the Liberal Arts

Quiz #1 - 2014.08.25

Name: _____

For this quiz, define the following statements:

p : Tuck is polydactyl cat.

q : Lyra is a tuxedo manx cat.

r : Lyra and Tuck get along.

Rewrite the following sentences in symbolic logic form:

1. Tuck is polydactyl and Lyra is a tuxedo manx, but they do not get along.

2. If Tuck was not polydactyl, then Lyra and Tuck would get along.

3. If Lyra and Tuck got along, then Lyra would not be a tuxedo manx cat.

Convert the following symbolic logic statements into English sentences:

4. $r \leftrightarrow (\sim p \vee \sim q)$.

5. $\sim (\sim p \rightarrow r)$