ANS for Homework 4

1)  a) There are people who love all cats
    b) Every loves cats.
    c) Any cat loves this person
    d) Everyone loves a cat.

2)  a) False since x ≠ 2,3 
    b) True  since x = 2
    c) True
    d) True

3)  a)  ∀(x) ∈ D,  D(x) → C(x)   where D is the set of all differentiable functions and C
     is
     the set of all continuous functions.
    b)  ∀(x) ∈ E, E(x) → A(x)  Where E is the set of things "that end well" and A is the
     set
     of all things that are "well".
    c) ∃(x) ∈ H such that  H(x) ∧ ∼P(x)  Where H is the set of all things in heaven and
     earth and P(x) are things in Horatio's Philosophy.
    d) ∃(x) ∈ G such that G(x) ∧ ∼GL(x)  Where G is the set of all things that glitter and
     GL is the set of all things gold.

3)  a) True
    b) True
    c) False  no x value will work for more than one y value
    d) False  y must be greater than 7 for this to be true
    e) False  For any x = k value you choose there will be a y = 3(k) that won't work.
    f) True
    g) True
    h) True