Short Logic Quiz (3)

name:_____

[date]

max. 3 points

a) The rules ∃-Elim and ∀-Intro differ with regard to what may be written as the final line of the boxed subproof. How?
[1pt – all or nothing]

b) The following (non-annotated) proof contains a very strange and illegitimate step. Which one is it and what is wrong with it?
[1pt – all or nothing]

1.	**∀x(G(x) → F(x))**	
2.	**∀x(F(x) → H(x))**	
3.		**a Ga**
4.		**Ga → Fa**
5.		**Fa → Ha**
6.	**∃x(Fx → Hx)**	

c) Pick the right option [1pt – all or nothing]

1. When opening a boxed subproof, one can introduce any name that picks out some object in the domain of discourse.

☐ **True** ☐ **False**

2. From "¬(F(a) ∧ F(b))" one can derive, in a few simple steps: ∃x∃y[¬F(x) ∨ ¬ F(y)]

☐ **True** ☐ **False**

3. 1) One cannot do an existential elimination within a universal introduction. 2) One can do a universal introduction within an existential elimination.

☐ **both true** ☐ **1: true, but 2: false** ☐ **1: false, but 2: true** ☐ **both false**