4.1 The following sentence is scopally ambiguous:

(1) *Every student at a university presents a paper*.

Derive two readings of the sentence using the Nested Cooper Storage technique from the lecture (and β-reduce the result as usual):

(a) one reading in which the quantifier that corresponds to “every student” takes scope over “a university” and

(b) one reading in which “a university” takes scope over “every student.”

Hint: The preposition “at” translates into $\lambda Q \lambda F \lambda x(F(x) \wedge Q(\lambda y.at'(y)(x)))$, where $Q \in VAR_{\langle\langle e,t\rangle, t\rangle}$, $F \in VAR_{\langle e,t\rangle}$, $x \in VAR_e$, and $at' \in CON_{\langle e,\langle e, t\rangle\rangle}$.

4.2 In addition to the two readings you derived for sentence (1) in 4.1, the sentence has three further readings. Try to specify these readings, and indicate how these readings can be derived using Nested Cooper Storage by specifying which operations have to be applied at which nodes in the syntax tree during semantics construction.

To be turned in Thursday, 2010-05-20.