1. Let A be an expression of type e, B of type et, C of type (et)et, and D of type (et)t. Determine whether the following expressions are well-formed, and if yes, give the type of those expressions:
   a. A(B)
   b. C(B(A))
   c. C(B)
   d. C(B)(A)
   e. D(B)
   f. D(B)(A)
   g. D(C(B))
   h. C(C(B))(A)

2. Give the types of the subexpressions marked by “?”, assuming that the examples are well-formed.
   a. A(B), A: (e(et))t, B: ? A(B): ?
   b. A(B), A(B): (et)et, B: et, A: ?
   c. A(B)(C), A: ((et)t)(et)et, B: ?, C: ?, A(B)(C): ?
   d. A(B)(C), A(B): et, A(B): eet, B: (et)t, A: ? C: ?
   e. A(B(C)) A(B(C)): e B: (et)t A: ? C: ?
   f. Is it possible to assign types to A, B and C in such a way that both A(B(C)) and (A(B))(C) are well-formed expressions?

3. Assume that intransitive verbs are of type et, and transitive verbs are of type eet.
   a) What is the type of and as a conjunction of intransitive verbs, as in John [sleeps and snores]?
   b) What is the type of and as a conjunction of transitive verbs, as in John [read and enjoyed] “Ulysses”?
   c) What is the type of the adverb quickly in a sentence like John [walked quickly]?
   d) What is the type of the preposition with in the sentence John [walked with [Mary]]?
   e) What are the types of faster and than in the sentence John [walks [faster than Mary]]?
   (In doing problems (3a-e) assume a binary branching structure for and.)

4. There are different conventions for naming types.
   a. Translate the following three abbreviated type names to type names using the official convention of angled brackets:
      eet, (et)et, ((et)et)(et)
   b. Translate the following three official type names to type names using the abbreviatory convention:
      << e, t >>, << e, t >>, << e, t >>