CSE 231 Spring 1998

Extra Credit HW Due Tues May 19

Submit as many problems as you wish.

1. Give an example of two variables that are congruent but not dynamically equivalent.
2. Show that if X and Y have the same set of control dependences (with the same labels) then X dominates Y or Y dominates X.
3. Give an example of CSE of 2 different expressions, such that if the same temporary variable is used to hold the result of the expression, an incorrect value will be used.
4. 9.8 on p. 291
5. A definition of a variable is *extraneous* if it is not used on any path from the definition. Formulate as a data flow problem, indicating the flow graph, the direction of the problem, defining the *Gen*, *Kill*, *In* and *Out* sets, and giving the data flow equations for its solution.