Advanced Compiler Techniques

Homework #1

Due: Sep 29, 2011 (before class)

Exercise 9.2.1: For the flow graph of Fig. 9.10 (see the exercises for Section 9.1), compute

a) The *gen* and *kill* sets for each block.

b) The IN and OUT sets for each block.

Exercise 9.2.2: For the flow graph of Fig. 9.10, compute the *e_gen*, *e_kill*, IN, and OUT sets for available expressions.

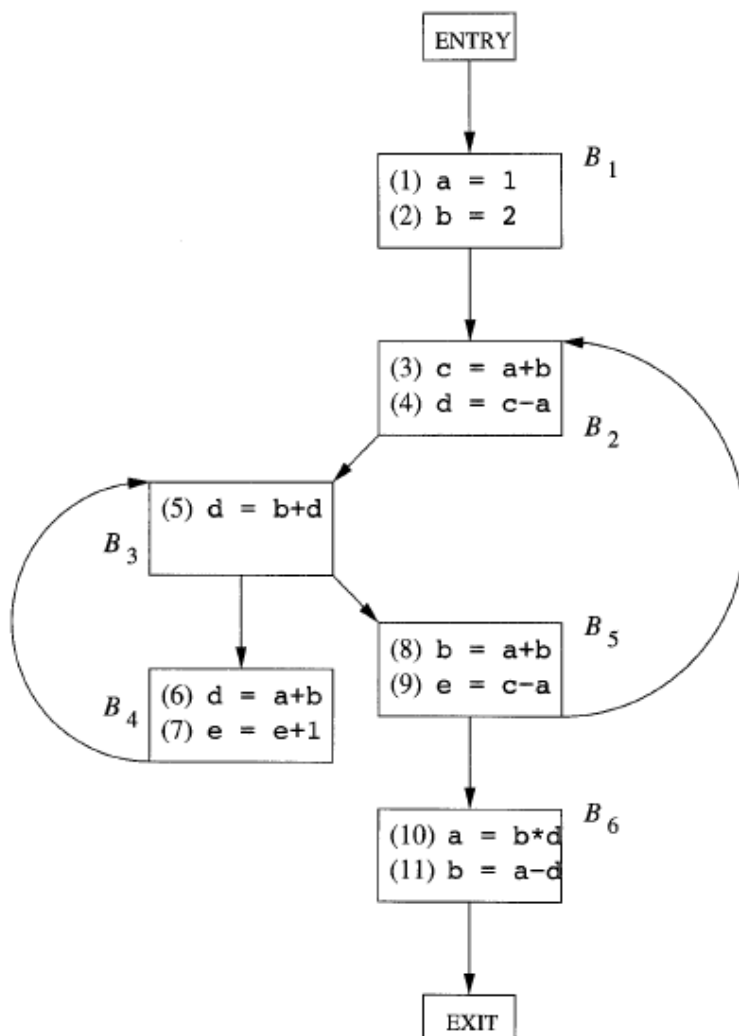**Exercise 9.2.3:** For the flow graph of Fig. 9.10, compute the *def*, *use*, IN, and OUT sets for live variable analysis.

Figure 9.10: Flow graph for Exercise 9.1.1