**B-4: Common Subexpression Elimination**

**Question 1:**

How many times is the expression (a + c) computed in the original code (as seen in the SSA pass)? What about after the FRE pass?

**Answer:**

In SSA pass, expression (a + c) is computed twice, but in FRE pass it is computed only once because FRE pass can reuses temporary variables.

**Question 2:**

Have there been any more optimizations after FRE? How will you check?

**Answer:**

B-4.c.\*.optimized , This is the last GIMPLE intra-procedural pass.

**Question 3:**

Why did we have to put a "return b" in this assignment? What if "return b" is changed to "return 0"? Will it make any difference?

**Answer:**

“return b“ is required to prevent computation of variable ‘b’ from becoming a dead code.