**Homework 3**

**1.** Write a program to clear Register B, and then add the number three to B seven times. Use the BNE instruction with DECA.

**2.** Write a program to clear Register A, add five to Register A 10 times, and place the result in RAM Location $2000. Use a RAM location for holding the counter.

**3.** What is the size of each instruction?
I. LDAA     #50
II. BEQ      there
III. STAA    $2000
IV. DECB
V. LDAB     0, X

**4.** Write the sequence of instructions to save Registers A, Y, and X in the Stack with the given order. Write the sequence of instructions to retrieve those values back.
Saving A, Y, and X in Stack:

1 \_\_\_\_\_\_\_\_\_\_

2 \_\_\_\_\_\_\_\_\_\_

3 \_\_\_\_\_\_\_\_\_\_

Retrieving values back:

1 \_\_\_\_\_\_\_\_\_\_

2 \_\_\_\_\_\_\_\_\_\_

3 \_\_\_\_\_\_\_\_\_\_

**5.** Show code for a nested loop to perform an action 1,000 times.