**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.