Assignment 2

1. If the register A1, A0, and Z contain the values 0, 2, and 0 respectively, what will be the value in register A0 after execution of the following code snippet?

   ```
   ADC A1, A0, Z
   INC B
   ```

2. If the register A1, A0, and Z contain the values 0, 10, and 0 respectively, what will be the value in register A0 after execution of the following code snippet?

   ```
   ADC A1, A0, Z
   INC B
   ```

3. If the register A1, A0, and Z contain the values 0, 3, and B respectively, what will be the value in register A0 after execution of the following code snippet?

   ```
   ADD A1, A0, Z
   INC B
   ```

4. If the register A1, A0, and Z contain the values 7, 10, and 1 respectively, what will be the value in register A0 after execution of the following code snippet?

   ```
   ADD A1, A0, Z
   INC B
   ```

5. If the register A contains the hexadecimal number 0x0800, what is the value of the register A in the following condition?

   ```
   A: 0x800
   ```

6. If the register A contains the hexadecimal number 0x0800, what is the value of the register A in the following condition?

   ```
   A: 0x800
   ```

7. What does the following ARM instruction compute?

   ```
   ADD A0, A0, <-10
   ```

8. Memory locations 0x0000, 0x0004, and 0x0008 contain the data 13, 20, and 10 respectively. If register R1 is initialized to the value 0x10, the content of register R1 after execution of the following code snippet is:

   ```
   LDR R1, [R1, 0x10000]
   ```

9. If the register R1 contains the value 0x10, what is the value of R1 after executing the following instruction?

   ```
   LDR R1, [R1, 0x10000]
   ```

10. What is the advantage of using an incrementer for instruction execution in ARM?

    a. It helps reduce the number of cache lookups.
    b. It helps to improve the cache latency.
    c. It increases the number of instructions handled.
    d. None of these.

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