

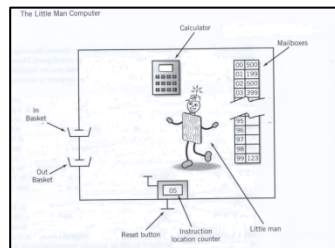
Dear Students,

You don't have to submit this assignment, but I recommend you to review these questions before your Quiz 2 as a preparation

The Quiz 2 should have up to 4 questions related to these:

Chapter 6 The Little Man Computer

Consider



this model of the LMC and answer the questions below

Please refer to this table of op codes for problems 1

Opcode	Definition
0	Halt
1	ADD
2	SUBTRACT
3	STORE
5	LOAD
6	BRANCH UNCONDITIONALLY
7	BRANCH ON ZERO
8	BRANCH ON POSITIVE
901	INPUT
902	OUTPUT

Please refer to this table of Mailboxes and Contents for problems 1 through 3

Mailbox	Contents	Calculator
00	505	1
01	106	$4 << 1 + 3$
02	507	6
03	902	
04	000	
05	1	DAT
06	3	DAT
07	6	DAT

1. What is the value in the **calculator** after the first instruction (505) is completed? **1**
2. What is the value in the **calculator** after the fetch but before the execute portion of second instruction (106)? **1**

3. What is the value in the program counter (instruction location counter) when the program is finished?

- a) 03
- b) 04
- c) 05
- d) 06**

Section 5

The 9's complementary operation.

a) Find the 9's complementary representation for the *three*-digit number -451.

999-451 = 548

b) Find the 9's complementary representation for the *four*-digit number -551.

9999-0551 = 9448

Section 5.3 Real Numbers

In problems 9-13 use the floating point format SEEMMMMM, where S = 0 is "+" and 5 is "-"; EE is the exponent in excess-50, and MMMMM are five digits of mantissa.

Show how 14.25 is represented in SEEMMMMM format.

05214250