

Last name: _____

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CS2461 - In-Class October 9

Consider the following LC3 program stored in memory. The figure shows contents of 6 memory locations.

Assume PC=1000, R1 contains decimal number 4, and R2=0, R3=0, R4=0.

The figure shows the 16 bit value stored at each address; for example, address x1000 stores the 16-bit value 1111000000011111 (the figure shows the value for each of the bits from bit 15 to bit 0).

Address	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
x1000	0	0	0	1	0	1	1	0	0	1	1	1	1	1	1	0
x1001	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1
x1002	0	0	0	1	1	0	0	0	1	1	0	0	0	0	1	0
x1003	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0
x1004	0	0	0	1	0	1	1	0	1	1	1	0	0	0	0	1
x1005	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
x1006	0	1	0	1	0	1	1	0	1	1	1	0	0	0	0	1
....																
....																

What are the first five instructions (in this program) executed by LC3 ? What are the results in the registers and PC after each instruction is executed.