Memory Location	Value	Instruction	Cycles takes to exectue once	number of times executed	Total Cycles for instruction
X3000	0101000000100000	AND	10	1	10
X3001	0001000000100101	ADD	10	1	10
X3002	0010001000000100	LD	17	1	17
X3003	0001000000000000	ADD	10	4	40
X3004	0001001001111111	ADD	10	4	40
X3005	0000001111111101	Branch	10 if not taken 11 if taken	3 times taken 1 time not taken	43

Total Cycles 10+10+17+40+40+43 = 160

5. What does the following program do (in 15 words or fewer)? The PC is initially at x3000. (Assume that before the program is run,R0 has the value x0000.)

Memory Location	Value
x3000	0001 000 000 1 10000
x3001	0010 001 011111110
x3002	0000 010 000000100
x3003	0000 011 000000001