

EE 308 – LAB 2**ASSEMBLY LANGUAGE PROGRAMMING AND 9S12 PORTS (WEEK 1)****Pre-Lab****Questions to answer before the lab:**

1. Hand-assemble the program in Figure 1 of Week 1; i.e., determine the op-codes the MC9S12 will use to execute this program.
2. How many cycles will this take program on the MC9S12? (Do not consider the swi instruction.)
3. How long in time will this take? (Note: the MC912 executes 24 million cycles per second.)
4. What will be the state of the N, Z, V and C bits after each instruction has been executed? (Ignore the swi instruction.)
5. What will be in address 0x1000 and 0x1001 after the program executed?
6. Consider the program in Figure 2 of Week 1. How many cycles will it take to execute the program on the MC9S12?
7. How long in time will this take?
8. Consider the program in Figure 3 of Week 1. How many cycles will this program take on the MC9S12?
9. How long will it take to execute this program?