1. What do you think the purpose of this file is? Hint: compare the order in the file to Table 4.1 on page 50 of the data sheet.

The header file defines all the SFRs and their respective address.

1. Did any of the bits in PORTA and LATA change? Describe the changes you observed.

LATA changed to 0xFF, but PORTA did not

3. Did it fix the problem completely? Describe exactly what occurred.

No, this did not fixed it completely. LATA still stayed at 0xff, and PORTA changed to 0x3f. The value of PORTA should be 0xff.

4. Explain the behavior of question 2 and 3that is; why did the bits in PORTA and LATA change or not change in the way that they did?

For question 2, TRISA was not set properly; therefore, all the pins are set inputs rather than outputs. For question 3, RA6 – RA7 can also function as an analog pin. This analog function must be turned off and set as digital pins before setting the TRIS state of the pins.

5. What did you need to do to fix this? State what code was added to get the first 8 pins of PORTA to be driven to a high voltage?

This fix can be accomplish by setting the bits of AD1PCGH to 1, which will effectively turn off the analog module for these two pins.

6. What assembly language is generated from the c statement ‘PORTA = 0xff;’

MOV #0xFF, W4

MOV W4, PORTA

7. How much program memory and data memory have you used?

We used 343 words of program member and 0 bytes of data memory.

8. Where is the rest of the instructions coming from and what are the instructions for?

The rest of the instructions are coming from the compiler. These instructions are used to configure and set up the PIC. It is doing things such as setting up the stack.