1. Perform the following addition using unsigned 8-bit arithmetic. Show how the PIC18F would represent these numbers in Hexadecimal.

$$93_{10} + 122_{10} = \_\_\_\_\_{}_{10}$$

2. Perform the following subtraction using signed 8-bit 2's complement arithmetic. Verify your answer in base 10.

$$B3_H - E8_H = \_\_\_\_\_{}_H$$

3. What is the memory capacity of a 22-bit address bus? How many address lines would be required for a 256K memory?

4. Draw the registers and buses (including their sizes) used to fetch an instruction from Program Memory in the PIC18F.

5. Draw the registers and buses (including their sizes) used to read a byte from Data (File) Memory in the PIC18F.

6. What are the special function registers and their address range in the PIC18F?