1) **Assume the following two bytes of memory contain an unsigned 16-bit integer. If the computer is Big Endian, what is the decimal number?**

Memory address	Hex value
1000h	03h
1001h	0Ah

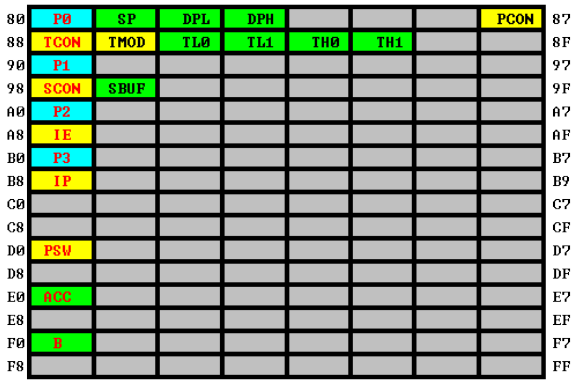
2) **Using the same two bytes of memory from problem 1, if the computer is Little Endian, what is the decimal number?**

3) **Assume you want to store the decimal value 1456 in a 16-bit data type stored in 2 bytes of memory. Show the hex values stored in memory for a Little Endian and a Big Endian computer.**

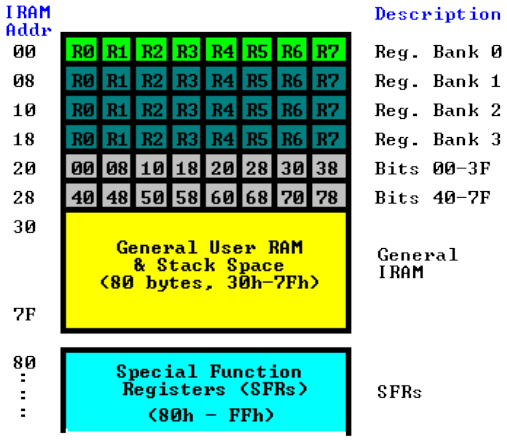
Memory address	Little Endian (hex)
1000h	
1001h	

Memory address	Big Endian (hex)
1000h	
1001h	

4) For the decimal value from problem 3 (1456), show the 8052 assembly instructions required to load this value into the DPTR special function register.



5a) Your 8052 has a set of integer values stored in 8-bit 2's complement stored in user memory locations 30h, 31h, 32h, and 33h. Assume the accumulator currently is 0. Show the 8052 assembly instructions required to sum the values leave the final result in the accumulator. You can ignore overflow.



5b) You would like to count up how many of the 4 numbers are negative. Show how to use the bitwise AND instruction (ANL) to do this. You should leave the original numbers in 30h-33h untouched.

5c) Assume instead you have 10 numbers stored in 30h-39h. Using indirect addressing (MOV direct, @R0) to create a loop which sums the 10 numbers.