Name:

Preliminary Work

Load the **7segTest** program. Set DIP switch for the seven-segment display, right digit: SW2-2 (LED DIG1). Number the order that the segments light up as you run the program:

Set SW2-3 ON (LED DIG2) to enable the left digit. Run the 7segTest program again and observe the order that the LED segments light up. Again, number them on the diagram:

Fill in the table to determine which segments to turn on for each value. Place a one or a zero in each of the "gfedcba" squares to indicate if that segment is on or off to display that digit. The 8th (i.e., most significant) bit represents the decimal point – set it to zero.

Convert the binary value to hexadecimal – each group of 4 bits represents one hex digit. The bits represent powers of 2: 8, 4, 2, 1 – first, convert the number to decimal. If the number is 10 or higher, convert it to a letter: 10 is A, 11 is B, 12 is C, 13 is D, 14 is E, 15 is F.

See the Wikipedia page for details: **http://en.wikipedia.org/wiki/Seven-segment_display**

NOTE: The digits on the PICTRAINER board are connected with segment 'a' on pin zero (controlled by bit zero), segment 'b' on pin 1, …, segment 'g' on pin 6, and the decimal point on pin 7.

Count	7-seg. Display	g	f	e	d	c	b	a	PIC ASM Binary value	PIC ASM Hex Value
0		0	1	1	1	1	1	1	b'00111111'	h'3F'

Count	Display	g	f	e	d	c	b	a	PIC ASM Binary value	PIC ASM Hex
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										