Quiz 2

(October 12th @ 3:30 pm)

PROBLEM 1 (35 PTS)

- Complete the following table. Use the fewest number of bits in each case:

REPRESENTATION			
Decimal	**Sign-and-magnitude**	**1's complement**	**2's complement**
			10
6			
	1101		
		1011	

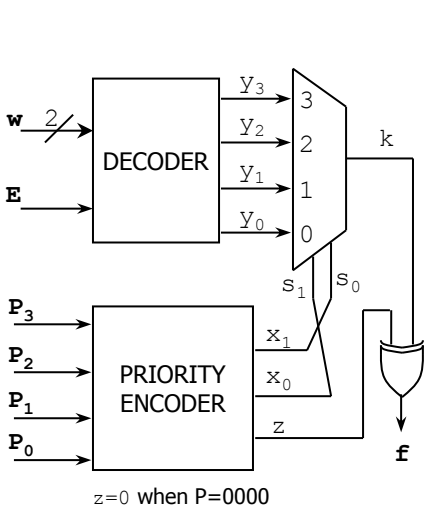
- Convert the following decimal number to its 2's complement representation: -12.75 (5 pts.)

PROBLEM 2 (30 PTS)

- Perform the following operation in the 2's complement representation, i.e., provide the summands and the result in 2's complement representation. Use the minimum number of bits to represent both the summands and the result so that the overflow bit is 0.
  - ✓ -14 - 6

PROBLEM 3 (35 PTS)

- Complete the timing diagram of the circuit shown below:



z=0 when P=0000