Unit #10 Practice Blackboard Insert

1. (**2 pts.**) Identify the acid, base, conjugate acid and conjugate base in the following reaction.

$$HNO_{2\,(aq)} + HS^-_{\,(aq)} \leftrightarrow H_2S_{\,(s)} + NO_2^{\,-}{}_{(aq)}$$

2. (**2 pts.**) Based on the given pH values, indicate whether the substances that are listed below are acidic, basic, or neutral.

Substance	pH	Acidic/basic/neutral
Sea water	8.5	
milk	6.4	
Green tea	7.90	
listerine	5.45	

3. (**2 pts.**) Circle the phrase in parentheses which will make the statement correct.

   A solution with a pH of 5.75 is (more acidic / less acidic) than a solution with a pH of 3.25.

   A solution with a pH of 11.50 is (more basic / less basic) than a solution with a pH of 9.75.

4. (**4 pts.**) 25.00 mL of 0.280 M Aluminum Hydroxide are required to neutralize 18.50 mL of a Hydrochloric Acid solution. What is the molarity of the Hydrochloric Acid solution?

Extra Credit (1 pt):

Convert name to formula or visa versa … from the list of names in unit 5