

Name: _____ Per _____

Acids and Bases Review

Prep

1. Classify each of the following properties as characteristics of an acid (A) or base (B).

a. Dissociates to produce H^+ ions	f. Turns pH paper blue	j. Turns yellow with bromothymol blue
b. Dissociates to produce OH^- ions	g. Feels slippery	k. Turns cabbage juice blue/green
c. Tastes sour	h. Reacts with metals to produce hydrogen gas	l. Turns cabbage juice pink.
d. Tastes bitter	i. Turns pink with phenolphthalein	
e. Turns pH paper red		

2. Classify each as an acid (A) or a base (B) and name the compound.
 - a. HNO_3
 - b. $LiOH$
 - c. H_2SO_3
 - d. Potassium hydroxide
 - e. Nitrous acid
 - f. Ammonium hydroxide

3. Complete the following table.

[H^+]	pH	pOH	[OH^-]	Acidic or basic
		2.25		
0.050 M				
			$8.5 \times 10^{-6} M$	
	4.65			
				Neutral

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4. Classify the following substances as acidic or basic and determine the $[H^+]$ and $[OH^-]$.

a. Milk, $pH = 6.40$

b. Lye, $pOH = 2.64$

5. Determine the pH and pOH of the following solutions.

a. 0.014 M HCl

b. $4.8 \times 10^{-5} \text{ M Ba(OH)}_2$

6. Complete the following neutralization reactions

a. $H_2CO_3 + KOH \rightarrow$

b. Lithium hydroxide + nitric acid \rightarrow