

Name: _____ Date: _____

Acid and Base Worksheet

- 1) Using your knowledge of the Brønsted-Lowry theory of acids and bases, write equations for the following acid-base reactions and indicate each conjugate acid-base pair:
 - a) $\text{HNO}_3 + \text{OH}^- \rightarrow$
 - b) $\text{CH}_3\text{NH}_2 + \text{H}_2\text{O} \rightarrow$
 - c) $\text{OH}^- + \text{HPO}_4^{2-} \rightarrow$
- 2) The compound NaOH is a base by all three of the theories we discussed in class. However, each of the three theories describes what a base is in different terms. Use your knowledge of these three theories to describe NaOH as an Arrhenius base, a Brønsted-Lowry base, and a Lewis base
- 3) When hydrogen chloride reacts with ammonia, ammonium chloride is formed. Write the equation for this process, and indicate which of the reagents is the Lewis acid and which is the Lewis base.
- 4) Write an equation for the reaction of potassium metal with hydrochloric