Name: Date: Period:

**Practice: Acids/Bases Definitions**

1. (CH3)3N (aq) + H2O(l)  (CH3)3NH+ (aq) + OH- (aq)
2. What is the role of CH3)3N in the forward reaction? Justify your answer.

**[Arrhenius Acid, Arrhenius Base, B-L Acid, or B-L Base]**

1. Which compounds function as Bronsted-Lowry bases in the reaction? Justify your answers.
3. What is the difference between the Arrhenius and the Bronsted-Lowry definitions of an acid?

NH3 + HCl  NH4+ + Cl-

In the above reaction, which substance is the Bronsted-Lowry acid? Which substance is the Bronsted-Lowry base in this reaction?

HSO4- + H2O  H3O+ + SO42-

1. Would you classify HSO4- as an Arrhenius acid? Why or why not?
2. Would you classify HSO4- as a Bronsted-Lowry acid? Why or why not?
3. HF + H2O  F- + H3O+
4. Which compound is responsible for the production of the hydronium ions? As a result, how would you classify this compound?
5. Why is H2O classified as a Bronsted-Lowry base in this reaction?

H2SO4 + H2O  H3O+ + HSO4-

1. Why is H2SO4 classified as an Arrhenius acid in this reaction?
2. Is H2SO4 also a Bronsted-Lowry acid? Why or why not?