Name: Date: Period:

**Practice: Classifying Reactions**

1. The chemical reaction of hydrochloric acid with magnesium ribbon is shown below:

HCl (aq) + Mg (s) 🡪 MgCl2 (aq) + H2 (g)

Would you classify this reaction as an acid-base reaction, precipitation reaction, or oxidation-reduction reaction? Explain your answer.

1. The reaction of lithium hydroxide and acetic acid includes the transfer of a hydrogen ion. The reaction is shown below:

LiOH (aq) + HC2H3O2 (aq) 🡪 LiC2H3O2 (aq) + H2O (l)

What type of reaction is this? Justify your answer.

1. When lead (II) nitrates reacts with sodium sulfate, a solid is formed. The reaction is shown below:

Pb(NO3)2 (aq) + Na2SO4 (aq) 🡪 PbSO4 (s) + 2 NaNO3 (aq)

Classify this reaction as acid-base reaction, precipitation reaction, or oxidation-reduction reaction. Explain your answer.

1. Aqueous hydrochloric acid is neutralized by aqueous sodium hydroxide according to the reaction below:

HCl (aq) + NaOH (aq) 🡪 NaCl (aq)+ H2O (l)

Classify this reaction as acid-base reaction, precipitation reaction, or oxidation-reduction reaction. Explain your answer.

1. Classify the following reactions as acid-base, oxidation-reduction, or precipitation reaction. Explain each classification COMPLETELY.
2. MnO4- (aq) + I- 🡪 I2 (g) + Mn2+ (aq)
3. Sr(NO3)2(aq) + H2SO4(aq) → SrSO4 (s) + 2HNO3 (aq)
4. Ba(OH)2 (aq) + 2HNO3(aq) → Ba(NO3)2 (aq) + 2H2O (l)