

NAME:
SECTION:

HONORS CHEMISTRY

LEWIS ACID-BASE THEORY

Define the following terms:

Lewis acid:

Lewis base:

- Any species with a lone (nonbonding) pair of electrons can act as a Lewis base. Any Bronsted-Lowry base is also a Lewis base.
- Many transition metal cations can act as a Lewis acid; any species with an empty valence orbital can act as an acid in Lewis theory.
- A Lewis acid-base reaction results in the formation of a covalent bond. This type of bond is called a "coordinate covalent bond", because both electrons in the bond were donated by only one of the atoms participating in the bond. The complex ions that may form represent some very interesting (and advanced) chemistry!

Identify the Lewis acid and Lewis base in the following reactions:

