

Name: \_\_\_\_\_

Blk: \_\_\_ Date: \_\_\_\_\_

## Chemistry 11

### Lesson #5 Calculating the concentrations of IONS in solutions

#### Recall:

1. STOICHIOMETRY requires a \_\_\_\_\_ and in lesson #3 we learned about \_\_\_\_\_ equations.
2. The Molarity formula:
3. The Dilution formula:

**Example 1:** What is the molar concentration for the chloride ion in 0.25 M  $\text{AlCl}_3$  ?

- i. Write out the Dissociation Equation:
- ii. Use the equation to cross the MOLEDENGATE bridge to solve for the individual ion

**Example 2.** What is the molar concentration (molarity) of EACH ION that is made when mixing 50.0 mL of 0.500 M  $\text{AlCl}_3$  with 75.0 mL of 0.200 M  $\text{NiF}_2$  ?

- i. Write out the Dissociation Equations:
- ii. Use the Dilution formula TWICE to solve for the resulting concentrations of each compound:
- iii. Use the equation to cross the MOLEDENGATE bridge to solve for the individual ions:

