Name _____ Date _____ Class _____

7 IONIC AND METALLIC BONDING

SECTION 7.2 IONIC COMPOUNDS – Practice Problems

1. Use electron dot structures to predict the formula of the ionic compound formed from **calcium and phosphorus.**

a. Draw the dot structure for the neutral atoms. Then draw arrows showing where the electrons are transferred.

b. Which atom loses electrons? _____
How many are lost by one atom? _____
What is the resulting charge? _____

c. Which atom gains electrons? _____
How many are gained by one atom? _____
What is the resulting charge? _____

d. Write the chemical formula of the compound by writing the positive ion first and the negative ion right after it. _____

2. Use electron dot structure to predict the formula of the ionic compound formed from **oxygen and magnesium.**

a. Draw the dot structure for the neutral atoms. Then draw arrows showing where the electrons are transferred.

b. Which atom loses electrons? _____
How many are lost by one atom? _____
What is the resulting charge? _____

c. Which atom gains electrons? _____
How many are gained by one atom? _____
What is the resulting charge? _____

d. Write the chemical formula of the compound by writing the positive ion first and the negative ion right after it. _____

3. Use electron dot structures to predict the formula of the ionic compound that forms between **potassium and chlorine.**

a. Draw the dot structure for the neutral atoms. Then draw arrows showing where the electrons are transferred.

b. Which atom loses electrons? _____
How many are lost by one atom? _____
What is the resulting charge? _____

c. Which atom gains electrons? _____
How many are gained by one atom? _____
What is the resulting charge? _____

d. Write the chemical formula of the compound by writing the positive ion first and the negative ion right after it. _____

4. Use electron dot structure to predict the formula of the ionic compound that forms between **bromine and strontium.**

a. Draw the dot structure for the neutral atoms. Then draw arrows showing where the electrons are transferred.

b. Which atom loses electrons? _____
How many are lost by one atom? _____
What is the resulting charge? _____

c. Which atom gains electrons? _____
How many are gained by one atom? _____
What is the resulting charge? _____

d. Write the chemical formula of the compound by writing the positive ion first and the negative ion right after it. _____

5. Use electron dot structure to predict the formula of the ionic compound that forms between **aluminum and nitrogen.**

a. Draw the dot structure for the neutral atoms. Then draw arrows showing where the electrons are transferred.

b. Which atom loses electrons? _____
How many are lost by one atom? _____
What is the resulting charge? _____

e. Which atom gains electrons? _____
How many are gained by one atom? _____
What is the resulting charge? _____

f. Write the chemical formula of the compound by writing the positive ion first and the negative ion right after it. _____

6. Use electron dot structure to predict the formula of the ionic compound that forms between **phosphorus and barium.**

a. Draw the dot structure for the neutral atoms. Then draw arrows showing where the electrons are transferred.

b. Which atom loses electrons? _____
How many are lost by one atom? _____
What is the resulting charge? _____

g. Which atom gains electrons? _____
How many are gained by one atom? _____
What is the resulting charge? _____

h. Write the chemical formula of the compound by writing the positive ion first and the negative ion right after it. _____