Chemistry I Name _____

Date _____ Per _____

Worksheet #C21: Ionic Compounds (Monatomic Ions) pgs 202-205

1. What attracts ions to each other in an ionic bond? _____

_____

2. What does an ionic compound look like? _____

3. Each anion in an ionic compound is surrounded by _____and

each cation in an ionic compound is surrounded by _____

4. Name each of the following ionic compounds: (no Roman numerals are necessary)

a. LiCl _____

b. SrO _____

c. $AlI_3$ _____

d. $Rb_3N$ _____

e. $Al_2S_3$ _____

f. KI _____

g. $Na_3N$ _____

h. $SrBr_2$ _____

i. $Mg_3N_2$ _____

5. How many $Cl^{-1}$ ions would you need to go with a $Mg^{+2}$ ion? _____

6. How many $K^{+1}$ ions would you need to go with a $N^{-3}$ ion? _____

7. If you were making a crystal out of $Mg^{+2}$ ions and $N^{-3}$ ions, you would need

_____ $Mg^{+2}$ ions for every $N^{-3}$ _____ions .

8. What cations require the use of Roman numerals? The _____

metals (also known as the _____ block metals.

9. Write the formulae for the ionic compounds that would result from the following combinations. Remember to balance the charges!

a. lithium and oxygen _____

b. iron (III) and chlorine _____

c. sodium and phosphorus _____

d. lead (IV) and sulfur _____

e. lead (II) and sulfur _____

f. barium and nitrogen _____

g. aluminum and oxygen _____

h. gallium and nitrogen _____

10. Name each of these ionic compounds (hint: they all need Roman numerals).

a. $MoCl_5$ _____

b. $Cu_3N$ _____

c. $CrO$ _____

d. $VI_3$ _____

e. $SnS_2$ _____

f. $MnBr_2$ _____

g. $FeO$ _____

h. $Fe_2O_3$ _____

11. How are you doing at these? _____

_____