

Name _____

Basic binary ionic compounds

1. Write the names of these compounds...

a) MgO

b) BaF₂

2. Write the formulas for these compounds...write each ion and its charge to show that the charges balance out...

a) lithium sulfide (as an example)

b) calcium nitride

c) silver oxide

Li⁺¹ S⁻² (those don't balance)

Li⁺¹ (we need another Li)

Li₂S

Ionic compounds with multivalent compounds (remember that these need Roman numerals in the names)

3. Write the names of these compounds...

a) Fe₂O₃

b) MnS₂

4. Write the formulas of these compounds...write each ion and its charge to show that the charges balance...(like #2)

a) copper (II) chloride

b) tin (IV) phosphide

Ionic compounds with polyatomic ions

5. Write the names of these compounds...

a) (NH₄)₂O

b) Na₂CO₃

6. Write the formulas of these compounds...write each ion and its charge to show that the charges balance...(like #2)

a) lithium phosphate

b) manganese (III) nitrate

Ionic compounds of any type...all mixed up...

7. Name these compounds...

a) PbCl_4 Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

b) RaF_2 Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

c) $\text{Co}(\text{ClO}_3)_2$ Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

d) $(\text{NH}_4)_3\text{P}$ Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

e) ZnS Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

8. Write the formulas for these compounds...write each ion and its charges to show that the charges balance out...

a) nickel (II) hydroxide Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

b) sodium phosphate Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

c) potassium phosphide Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

d) aluminum bromide Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____

e) magnesium bicarbonate Does it have a multivalent metal? _____ Does it have a polyatomic ion? _____