

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

**IONIC COMPOUNDS HOMEWORK II:** The metals in the following compounds form ions with different charges, so the charge cannot be predicted from the periodic table. Determine the charge on the metal ion and write the name for each compound.

1. SnO tin(II) oxide
  2. SnBr<sub>4</sub> tin(IV) bromide
  3. FeS iron(II) sulfide
  4. CuSO<sub>4</sub> copper(II) sulfate
  5. ZnCl<sub>2</sub> zinc chloride
  6. CrBr<sub>3</sub> chromium(III) bromide
  - \*7. CoCO<sub>3</sub> cobalt(II) carbonate
  8. Mn(NO<sub>3</sub>)<sub>2</sub> manganese(II) nitrate
  9. FeO iron(II) oxide
  10. CuCl<sub>2</sub> copper(II) chloride
  11. Fe<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> iron(II) phosphate
  12. Hg(IO<sub>3</sub>)<sub>2</sub> mercury(II) iodate
  13. Ni<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> nickel(III) sulfate
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Write the formula for each of the following compounds

1. tin(IV)chloride SnCl<sub>4</sub>
2. iron(III)sulfide Fe<sub>2</sub>S<sub>3</sub>
3. mercury(II)oxide HgO
4. cobalt(III)oxide Co<sub>2</sub>O<sub>3</sub>
5. copper(II)sulfate CuSO<sub>4</sub>
6. chromium(III)chloride CrCl<sub>3</sub>
7. copper(II)phosphate Cu<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>
8. lead(IV)oxide PbO<sub>2</sub>
9. cobalt(III)oxide Co<sub>2</sub>O<sub>3</sub>
10. lead(II)chromate PbCrO<sub>4</sub>
11. bismuth(III)iodate Bi(IO<sub>3</sub>)<sub>3</sub>
12. cobalt(III)hydroxide Co(OH)<sub>3</sub>