

Exercise 3: Nomenclature

1. Write the **systematic name** for the following compounds. Don't forget Roman numerals and Greek prefixes where appropriate.



2. Write the **chemical formula** for the following compound names. Remember that the proper capitalization is important!

a. calcium fluoride

b. tin (II) nitrite

c. cobalt (III) carbonate

d. dinitrogen tetroxide

e. silicon tetrabromide

f. sodium sulfite heptahydrate

3. Write the **systematic name** for the following acids.

a. HBr (aq)

b. H_3PO_4 (aq)

c. HNO_3 (aq)

d. HNO_2 (aq)

4. Write the **chemical formula** for the following acid names. Don't forget to indicate the aqueous phase necessary to have an acid.

Note: BrO^- is the **hypobromite** ion; BrO_2^- is the **bromite** ion; BrO_3^- is the **bromate** ion; BrO_4^- is the **perbromate** ion.

a. perbromic acid

b. bromic acid

c. bromous acid

d. hypobromous acid

5. Write all of the chemical formulas possible when the **Mn²⁺** and **Mn³⁺** cations mix with the **nitrate** and **nitrite** anions. Underneath each of the formulas, write the systematic name of each of the compounds.

