

Chem 130  
Practice Set I

Classify the following compounds as covalent or ionic and give their names:

$\text{CrO}_3$  Covalent (*Cr would be  $\text{Cr}^{6+}$ , which is not on list*); chromium trioxide

$\text{ClF}_3$  Covalent (*both non-metals*); chlorine trifluoride

$\text{Ag}_2\text{SO}_4$  Ionic (*includes polyatomic anion*); silver sulfate

$\text{NH}_4\text{HSO}_4$  Ionic (*includes polyatomic ions*); ammonium hydrogen sulfate

Write the chemical formula for the following compounds and identify as ionic or covalent:

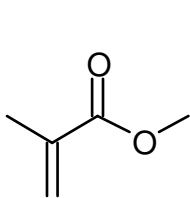
potassium permanganate  $\text{KMnO}_4$ ; Ionic (*alkali metal, polyatomic ion*)

dinitrogen tetraoxide  $\text{N}_2\text{O}_4$ ; Covalent (*both non-metals*)

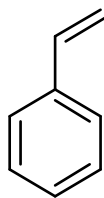
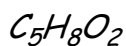
sodium thiosulfate  $\text{Na}_2\text{S}_2\text{O}_3$ ; Ionic (*contains alkali metal, polyatomic ion*)

copper(I) oxide  $\text{Cu}_2\text{O}$ ; Ionic (*contains monoatomic  $\text{Cu}^+$  ion*)

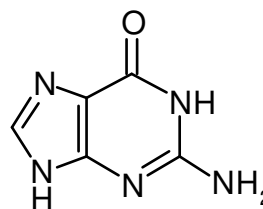
Convert the following line structures into chemical formulas:



methyl methacrylate



styrene



guanine

