General Chemistry (Chem 140) Worksheet   **Name** _____
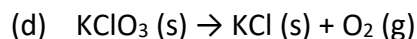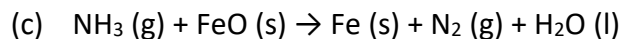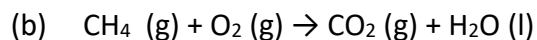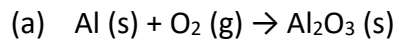
Balance the following equations. (Use the lowest possible whole number coefficients.)
Pay attention to naming and physical states, solid (s), liquid (l), aqueous (aq)

(a) Al (s) + O_2 (g) → Al_2O_3 (s)

(b) CH_4 (g) + O_2 (g) → CO_2 (g) + H_2O (l)

(c) NH_3 (g) + FeO (s) → Fe (s) + N_2 (g) + H_2O (l)

(d) $KClO_3$ (s) → KCl (s) + O_2 (g)

      $KClO_4$ – potassium *per*cholrate
      $KClO_3$ – potassium **chlorate**
      $KClO_2$ – potassium **chlorite**
      KClO – potassium *hypo*chlorite

(e) HCl (aq) + $MgCO_3$ (s) → $MgCl_2$ (aq) + H_2O (l) + CO_2 (s)

(f) Zn (s) + HNO_3 (aq) → $Zn(NO_3)_2$ (aq) + NO_2 (g) + H_2O (l)

(g) C_2H_6 (g) + O_2 (g) → CO_2 (g) + H_2O (l)

(h) $(NH_4)_2CO_3$ (aq) + $CaSO_4$ (aq) → $(NH_4)_2SO_4$ (aq) + $CaCO_3$ (s)

(i) H_2 (g) + Cl_2 (g) → HCl (g)

(j) $CuSO_4$ (aq) + Mn_3N_2 (aq) → Cu_3N_2 (s) + $MnSO_4$ (aq)

(k) Cr (s) + H_2SO_4 (aq) → $Cr_2(SO_4)_3$ (aq) + H_2 (g)

(l) CO_2 (g) + RbOH (s) → Rb_2CO_3 (aq) + H_2O (l)

(m) NH_3 (g) + CO_2 (g) + H_2O (l) → $(NH_4)_2CO_3$ (s)

(n) NaOH (aq) + H_3PO_4 (aq) → Na_3PO_4 (aq) + H_2O (l)