Chapter 11 Test Review

1. Balance the following equations.

a) NaClO
$$\rightarrow$$
 NaCl + O₂

b)
$$Mg + H_3PO_4 \rightarrow Mg_3(PO_4)_2 + H_2$$

c)
$$C_6H_6 + O_2 \rightarrow CO + H_2O$$

d)
$$Au_2O_3 \rightarrow Au + O_2$$

2. Complete and balance the following equations. Remember to check the activity series to see if the reaction takes place.

a)
$$Cd(NO_3)_2 + NH_4Cl \rightarrow$$

c)
$$Fe_2(SO_4)_3 + Ba(OH)_2 \rightarrow$$

d)
$$Zn + AgNO_3$$

3. Indicate the type of reaction for each of the following.

a) CH₄ + 2O₂ \rightarrow CO₂ + 2H₂O _____

b) 2Mg + 0₂ → 2MgO

c) 2K + 2H₂O → 2KOH + H₂

d) $K_2CO + BaCL_2$ \rightarrow 2KCl + BaCO₃

e) 2HgO → 2Hg + O₂ _____

4. Write a balanced equation for the complete combustion of C_4H_8

5. What would be the difference in the above equation if the combustion is not complete?

- 6. Will a precipitate form when the following aqueous solutions of ionic compounds are mixed? Indicate what the precipitate would be.
 - a) H₂SO₄, BaCl₂
- b) NH_4Cl , $Ba(NO_3)_2$
- c) $AgNO_3$, H_2S
- d) H₂SO₄, NaCl