Unit 4 – Chapter 4 **Name _____**

Practice problems **Period _____**

1) A standard solution is prepared for the analysis of fluoxymesterone ($C_{20}H_{28}FO_3$), an anabolic steroid. A stock solution is first prepared by dissolving 10.0 mg of fluoxymesterone in enough water to give a total volume of 500.0 mL. A 100.0 µL aliquot (portion) of this solution is diluted to a final volume of 100.0 mL. Calculate the concentration of the final solution in terms of molarity.

2) When the following solutions are mixed together, what precipitate (if any) will form?
   a. $Hg_2(NO_3)_{2(aq)} + CuSO_{4(aq)}$
   b. $Ni(NO_3)_{2(aq)} + CaCl_{2(aq)}$
   c. $K_2CO_{3(aq)} + MgI_{2(aq)}$
   d. $Na_2CrO_{4(aq)} + AlBr_{3(aq)}$