Activity in General Chemistry II

**Pm/v :**

1.What is the weight/volume percentage concentration of 250 mL of aqueous sodium chloride solution containing 5 g NaCl?

2. 15 mL of an aqueous solution of sucrose contains 750 mg sucrose.  
What is the weight/volume percentage concentration of this solution in g/100 mL?

3. 186.4 L of aqueous sodium hydroxide solution contains 1.15 kg NaOH.  
What is the weight/volume percentage concentration of this solution in g/100 mL?

4. A 4 g sugar cube (Sucrose: C12H22O11) is dissolved in a 350 ml teacup of 80 °C water. What is the percent composition by mass of the sugar solution?

**Mole fraction:**

1.What is the mole fraction of sodium chloride in a solution containing 0.23 moles of NaCl and 5.5 moles of water?

2. What is the mole fraction of oxygen in a gaseous mixture containing 25 grams of oxygen, 15 grams of nitrogen, and 10 grams of helium?