Concentration Practice Problems

Directions: Solve the following problems involving concentration

1. What is the concentration of solution composed of 8.21 g of potassium chromate dissolved in enough water to make 500 mL of solution?

2. A student wants to make a 0.15 g/mL solution of silver nitrate. If she has 11.27 g of silver nitrate in a bottle, how many mL of water should she add?

3. How many grams of sugar must be added to 450 mL of water to make a solution with a concentration of 0.12 g/mL?

4. What is the concentration if 75.0 g of ethanol are dissolved in 0.5 L of water? In g/100 mL?

5. If I wanted to make a 6.0 g/cm^3 solution, how many g of citric acid must I add to 1000 cm^3 of water?

6. Determine the concentration of a solution that contains 0.034 lbs of salt and 300 mL of water.

7. You have a saturated solution because you were able to dissolve 12.0 g of potassium nitrate in 60.0 cm^3 of water. What is the concentration of your solution? What is the concentration in g/100 cm^3?

8. You have a solution with a concentration of 3.1 g/mL, what amount of solvent do you have if you started with 21.5 g of solute?