Finding Solutions

1. What do you need to know in order to determine the concentration of a solution?
2. Define the term molarity.
3. How many grams of sucrose are in a liter of soda pop with a molarity of 0.75M M? ($C_{12}H_{22}O_{11}$ – sucrose).
4. What is the molarity of a 100 mL solution with 7.4 g potassium chloride (KCl) dissolved in it?
5. Which is more concentrated: a 1.0 L solution with 20 g sucrose ($C_{12}H_{22}O_{11}$) or a 1.0 L solution with 20 grams glucose ($C_6H_{12}O_6$)?
6. You have 1.0 L of 5.0 M NaCl solution.
    a) How could you make 1.0 L of 2.5 M NaCl?
    b) How could you make 500 mL of 2.5 M NaCl?
    c) How could you make 100 mL of 1.0 M NaCl?

Selected Answers:

3. 260g

6. a) You would need to add **0.5L** of the 5.0M NaCl solution into a flask and add water until it reached a volume of 1.0 L.