

3. What volume of acetic acid is contained in the 3.5 mL of vinegar, 5 % (V/V) that Ms. Cormier poured on her French Fries?

Answer: _____

4. What volume of a 50 g/L solution could be prepared using 2.00 g of sugar?

Answer: _____

5. What would a student use to prepare 250 mL of a 0.45 mol/L solution of potassium chloride.

Answer: _____

6. In the lab, a student mixes two liquid. She adds 48 g of ethanol to 110 mL of water. The density of ethanol is 0.78 g/L.

What is the % (m/V) ethanol concentration of this solution?

Answer: _____

7. A student was asked to make an isotonic solution of sodium chloride, 0.9 % m/V for use as a contact lens saline solution.

Starting with 50 mL of a sterile 5 % m/V salt solution, how much water would he have to use?

Answer: _____

8. A lab technician has 650 mL of a 474 g/L $\text{Zn}(\text{NO}_3)_2$ solution available to make 400 mL of a 1 mol/L solution to be used for an electrolysis experiment.

Explain how the technician would make the required solution.

9. A student required a 2 mol/L solution for an experiment. In the laboratory, the student can only find 300 mL of a 1.5 mol/L solution.

Explain what this student should do in order to obtain a 2 mol/L solution from the available 1.5 mol/L solution.
