

Name:

Date:

Pd:

MOLARITY PRACTICE

Calculating Molarity Practice: Show all your work including **units** and **substance**. Box your final answer. **Reminder:** 1000 mL = 1 Liter

1. What is the **definition, formula, and unit** of molarity?
2. Calculate the **molarity** of 0.120 moles NaHCO_3 in 0.50 L of solution.
3. Calculate the **number of moles** of NaCl contained in 0.500L of a 2.5M solution.
4. Calculate the **molarity** of 3.2 moles of sugar, $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ in 0.5 L of solution.
5. What is the **molar concentration** of 1.0 mol of KCl dissolved in 750.0 **mL** of solution? (Δ to L)
6. Calculate the **number of moles** of NaOH contained in 250 **mL** of a 0.05M solution. (Δ to L)
7. Calculate the **molarity** of 29.25 **grams** of NaCl in 2.0 liters of solution. (Δ to mol)
8. How many **grams** of NaCl are contained in the solution discussed in problem #3?

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9. Which solution is **more concentrated**? SHOW WORK!
- Solution "A" contains **50.0 g** of CaCO_3 in 500.0 **mL** of solution.
 - Solution "B" contains 6.0 moles of H_2SO_4 in 4.0 L of solution.
10. How many **liters** of solution can be produced from 2.5 moles of solute if a 2.0 M solution is needed?
11. What **volume** of a 0.25 M solution can be made using 0.55 moles of $\text{Ca}(\text{OH})_2$?
12. How many **moles** of H_2SO_4 are present in 1.63 liters of a 0.954 M solution?