

(L81) Molecular Views

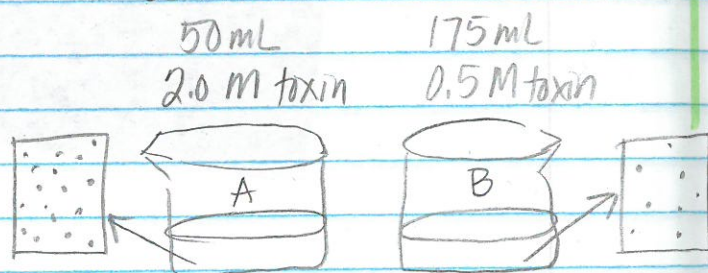
TODAY'S
DATE

E.Q.: How can you use molarity to determine the moles of solute?

BIG IDEA: The concentration of a sol'n does not change with the size of the sample

How to determine mol of solute using the concentration of the sol'n?

e.g., which beaker contains the larger dose of a toxic substance?



$$A: 50 \text{ mL} \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{2.0 \text{ mol}}{1 \text{ L}} = 0.1 \text{ mol Sample A}$$

$$B: 175 \text{ mL} \times \frac{1 \text{ L}}{1000 \text{ mL}} \times \frac{0.5 \text{ mol}}{1 \text{ L}} = 0.09 \text{ mol}$$

sample B

beaker A contains the larger dose of toxin b/c it is the more concentrated sample (2.0M) and contains more moles (0.1 mol) of toxic solute

no/
le A