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Partner \#1 $\qquad$ Partner \#2 $\qquad$ Partner \#3 $\qquad$
Molarity =
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Directions: Calculate the molarity of each of the following solution and show your work. Use correct units.
Set 1: Moles of Solute and Liters of Solution are given

1. 1.0 mol of KCl in 0.750 L of solution?
2. 0.50 mol of $\mathrm{MgCl}_{2}$ in 1.5 L of solution
3. 0.060 mol NaHCO 3 in 1.5 L of solution

Set 2: Grams of Solute and Liters of Solution are given
4. 400 g of $\mathrm{CuCl}_{2}$ in 4.00 L of solution
5. 12.6 grams $\mathrm{HNO}_{3}$ in1.0 L of solution
6. 12.2-grams of $\mathrm{CaCl}_{2}$, is dissolved in enough water to make 0.085 L of solution

## Set 3: Mixed Mole and Mass Problems

7. 42.5 g NaCl in 375 mL of solution
8. $22.0 \mathrm{~g} \mathrm{CuCl}_{2}$ in 1000 mL of solution.
9. How many moles of sucrose are dissolved in 250 mL of solution if the solution concentration is 0.150 M ?

Challenge: Which solution is more concentrated? Solution "A" contains 50.0 g of $\mathrm{CaCO}_{3}$ in 500.0 mL of solution. Solution "B" contains 6.0 moles of $\mathrm{H}_{2} \mathrm{SO}_{4}$ in 4.0 L of solution. SHOW WORK!

