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| *Mole to mol/L*CλeMis+ry: http://genest.weebly.com Stop in for help every day at lunch and Tues &Thurs after school! |  | Name\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. The formula for calculating molarity is concentration = $\frac{number of particles}{volume of solution}$

Rewrite this formula by just putting the name of the proper *units* in each space below:

[ ] = $\frac{\left[ \right]}{\left[ \right]}$

1. For this aqueous solution

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The solute is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The solvent (hint: it’s aqueous) is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. At home, whipped cream is made by just quickly beating some liquid cream until it foams up.

The solute is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The solvent is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Under a microscope, smoke is mostly tiny particles of graphite.

The solute is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The solvent is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is the concentration of a solution made by adding 9.84 moles of NH3 gas to water to form a solution that has a volume of 3.50 liters?
2. Write the memorized formula we use for calculating molarity:
3. Rearrange that formula to solve for moles (“Get the word moles by itself on one side of the equals sign by using algebra.”.)
4. Rearrange the formula from #6 to solve for volume (“Get the word moles by itself on one side of the equals sign by using algebra.”.)
5. Calculate the molarity of2.3 moles of potassium chloride in 0.45 liters of solution.
6. Calculate the molarity of 1.2 moles of calcium carbonate in 1.22 liters of solution.
7. Calculate the molarity of 0.09 moles of sodium sulfate in 12 mL of solution.
8. What is the concentration of a solution made by adding 9.84 moles of NH3 gas to water to form a solution that has a volume of 3.50 liters?
9. Tell how many moles of NaCl you would need to prepare 75 mL of a 0.1 *M* NaCl solution. (Fix your units first!)
10. How many moles of CuSO4 must be dissolved to make 39 mL of aqueous solution that has a concentration of 0.22$\frac{mol}{L}$?
11. The unit for molarity can be written as $\frac{mol}{L}$? What’s another symbol for molarity? \_\_\_\_\_