**CHEMISTRY NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SOLUTION CONCENTRATION WORKSHEET**

**MOLALITY PERIOD\_\_\_\_\_\_\_**

**molality = m = moles of solute**

**kg of solvent**

1. **DETERMINE THE MOLALITY OF THE FOLLOWING SOLUTIONS**.
2. 8.0 grams CH3OH in 500.0 grams of water

Example… *8 g CH3OH / 1 mole CH3OH = .5 m*

.5 kg / *32 g*

1. 30 grams of C6H12O6 in 500.0 grams of water
2. 69 grams of C2H5OH in 1500.0 grams of water
3. 57 grams of C12H22O11 in 200.0 grams of water
4. 46 grams of C3H5(OH)3 in 400.0 grams of water
5. 73 grams of HCl in 750.0 grams of water
6. DETERMINE THE MASS OF SOLUTE NEEDED TO ADD TO 500.0 GRAMS OF WATER TO OBTAIN THE FOLLOWING CONCENTRATIONS.
7. 1.0 m CH3OH

*Example …. 5 kg / 1 mole / 32 g CH3OH = 16 grams CH3OH*

*/ 1 kg / 1 mole*

1. 0.25 m C6H12O6
2. 0.50 m C2H5OH
3. 0.33 m C12H5OH
4. 0.75 m C3H5(OH)3
5. 0.20 m HCl

**CHEMISTRY NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SOLUTION CONCENTRATION WORKSHEET**

**PERIOD\_\_\_\_\_\_\_\_\_**

**MOLARITY**

1. DETERMINE THE MOLARITY OF THESE SOLUTIONS
2. 21 grams of HNO3 in enough water to make a final volume of 750.0 mL of solution
3. 36 grams of Na2SO4 in enough water to make a final volume of 600.0 mL of solution
4. 57 grams of Al2(SO4)3 in enough water to make a final volume of 500.0 mL of solution
5. 60 grams of CuSO4 in enough water to make a final volume of 300.0 mL of solution
6. 84 grams of KOH in enough water to make a final volume of 250.0 mL of solution
7. 147 grams of H2SO4 in enough water to make a final volume of 750.0 mL of solution
8. DETERMINE THE MASS OF SOLUTE NEEDED TO PREPARE THE FOLLOWING SOLUTIONS
9. 300.0 mL of 0.30 M HNO3
10. 600.0 mL of 0.50 M Na2SO4
11. 500.0 mL of 0.25 M CuSO4
12. 750.0 mL of 0.10 M Al2(SO4)3
13. 125.0 mL of 0.40 M KOH
14. 250.0 mL of 0.50 M H2SO4