**Dougherty Valley HS AP Chemistry**

**WORKSHEET #1**

**Solutions – Concentration Practice**

**Name: Date: Period: Seat #:**

Write the definition of each concentration in terms of **solute**, **solvent**, and/or **solution**:

|  |  |  |  |
| --- | --- | --- | --- |
| Molarity (M) | Molality (m) | Mole fraction (χ) | Weight percent (%) |
|  |  |  |  |

Each of these concentrations involves grams or moles of solute, solvent, or solution. Determine those values.

|  |
| --- |
| Assume you dissolve 2.56 g of malic acid, C4H6O5, in half a liter of water (500.0 g). |
| Molarity of acid in solution |  |
| Molality of acid in solution |  |
| mole fraction of acid in solution |  |
| weight percentage of acid in solution |  |

Fill in the blanks in the table. Aqueous solutions are assumed. Show all work

|  |  |  |  |
| --- | --- | --- | --- |
| **Compound** | **Molarity** | **Weight Percent** | **Mole Fraction** |
| NaI | 0.15 |  |  |
| C2H5OH |  | 5.0 |  |
| C12H22O11 | 0.15 |  |  |