CONCEPT: MOLE FRACTION

- **Mole Fraction (X)** represents the *mole component* divided by _____ moles.
  - □ **Mole Component**: The element or compound whose mole fraction you must determine.

Mole Fraction Formula

Mole Fraction (X) = _____

EXAMPLE: 25.0 g dichloromethane, CH_2Cl_2, are dissolved in 125 g H_2O, what is the mole fraction of dichloromethane?

STEP 1: Convert all the masses into _____.

- To avoid rounding errors, make sure the values have at least 4 decimal places

STEP 2: Place the **mole component** as the numerator of the mole fraction formula.

STEP 3: Determine the total value of all moles added together and place it as the denominator of the mole fraction formula.

- □ Your final answer should have no units because mole fraction (X) is a unitless expression.

PRACTICE: A reaction vessel is composed of 20.3 g Cl_2, 4.27 g N_2 and 10.8 g Ne. Calculate the mole fraction of nitrogen.