Mole Conversions Worksheet

There are 2 mole equalities. They are:

1 mol = 6.02 x 10^{23} particles

1 mol = g-formula-mass (periodic table)

Each equality can be written as a set of two conversion factors. They are:

$$\left(\frac{1\ mole}{6.02\,x\,10^{23}\ particles} \right) \qquad \left(\frac{6.02\,x\,10^{23}\ particles}{1\ mole} \right)$$

$$\left(\frac{1\ mole}{g-formula-mass} \right) \qquad \left(\frac{g-formula-mass}{1\ mole} \right)$$ **or 1 mol/gram**

Mole-Particle Conversions

1. How many moles of magnesium is 3.01 x 10^{22} atoms of magnesium?

3. How many moles are 1.20 x 10^{25} atoms of phosphorous?

4. How many atoms are in 0.750 moles of zinc?

Mole-Mass Conversions

1. How many moles in 28 grams of C?

2. What is the mass of 5 moles of Fe ?

3. Find the number of moles of argon in 452 g of argon.

4. Find the mass in 2.6 mol of lithium