

Guided Notes: Avogadro's Number, The Mole, Molar Mass and Mole Conversions

Determining the Number of Particles:

Avogadro's Number _____

Particle Types:

- _____
- _____
- _____
- _____

Converting from number of representative particles to moles and back:

1. How many formula units are in 3.50 moles of NaCl?

2. How many molecules are in 5.25 moles of water?

3. How many moles are in 4.78×10^{22} atoms of Ag?

Molar Mass:

- Use the _____ to get the atomic mass/molar mass
- Represents the number of _____ in _____
- Converts from _____ to _____

Determine the molar mass of the following compounds/molecules.

1. CaCO_3

2. Strontium hydroxide

3. Chlorine gas

Converting with Molar Mass:

1. How many grams are in 3.54 moles of He?

2. How many moles are in 238 g of manganese (II) oxide?

Calculations Using Multiple Steps:

- _____ can convert you to any other unit
- To convert between mass and particles you need to go through _____.

Practice:

1. How many particles are in 50.0 g of iron (III) oxide? What is the particle type?