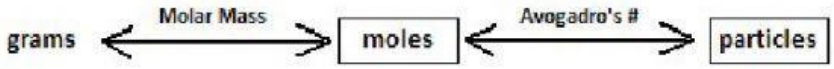
Mole Conversions Worksheet (moles to particles or grams) Name: _____

one step problems

***Directions*: Show ALL of your work. Make sure to include units!!!!**

Mole-Particle Conversions (use Avogadro's number for your conversions)



$\text{Avogadro's \#} = \frac{6.02\times10^{23}\text{ particles}}{1\text{ mole}}$ or $\frac{1\text{ mole}}{6.02\times10^{23}\text{ particles}}$

atoms (element)
molecules (covalent)
formula units (ionic)
ions (charged atoms)

1. How many **moles** of magnesium are in **5.01×10^{22} atoms of magnesium**?

Final Answer:

2. How many **molecules** are there in **8.00 moles of glucose, $C_6H_{12}O_6$**?

Final Answer:

3. How many **moles** are **3.20×10^{25} formula units of calcium iodide**?

Final Answer:

4. How many **formula units** are in **62.5 moles of calcium phosphate**?

Final Answer:

Mole-Mass Conversions (use the molar mass from the periodic table for your conversions)



$\text{Molar Mass} = \frac{x\text{ g}}{1\text{ mole}}$ or $\frac{1\text{ mole}}{x\text{ g}}$

atoms (element)
molecules (covalent)
formula units (ionic)
ions (charged atoms)

1. How many **moles** are in **28 grams of CO_2** ?

Final Answer:

2. What is the **mass** of **5.0 moles of Fe_2O_3** ?

Final Answer:

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

Final Answer:

4. How many **grams** are in **3.45 moles of CO_2**?

Final Answer:

LIVEWORKSHEETS