Moles Worksheet

- 1) Define "mole".
- 2) How many moles are present in 34 grams of $Cu(OH)_2$?
- 3) How many moles are present in 2.45 x 10^{23} molecules of CH₄?
- 4) How many grams are there in 3.4×10^{24} molecules of NH₃?
- 5) How much does 4.2 moles of $Ca(NO_3)_2$ weigh?
- 6) What is the molar mass of MgO?
- 7) How are the terms "molar mass" and "atomic mass" different from one another?
- 8) Which is a better unit for expressing molar mass, "amu" or "grams/mole"?

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Moles Worksheet (Solutions)

- Define "mole".
 6.02 x 10²³ of anything, usually atoms or molecules.
- How many moles are present in 34 grams of Cu(OH)₂?
 0.35 moles
- 3) How many moles are present in 2.45 x 10^{23} molecules of CH₄? 0.41 moles
- 4) How many grams are there in 3.4×10^{24} molecules of NH₃? 96 grams
- 5) How much does 4.2 moles of Ca(NO₃)₂ weigh? 689 grams
- 6) What is the molar mass of MgO? 40.3 grams/mole
- How are the terms "molar mass" and "atomic mass" different from one another?
 "Molar mass" is used to describe the mass of one mole of a chemical compound, while "atomic mass" is used to describe the mass of one mole of an element or the mass of one atom of an element.
- 8) Which is a better unit for expressing molar mass, "amu" or "grams/mole"? "Grams/mole" is better, because any macroscopic amount of a substance is better expressed in grams than amu.