Using the Mole and Molar Mass Concepts
Let's Practice!

How many moles of mercury does 23.0 g of Hg represent?

Using the Mole and Molar Mass Concepts
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What is the mass of 8.21 mol of K?

Using the Mole and Molar Mass Concepts
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How many Ti atoms are contained in 7.80 g of Ti?

Using the Mole and Molar Mass Concepts
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How many sulfur atoms are in 2.27 mol of S_8 molecules?

Using the Mole and Molar Mass Concepts
Let's Practice!

What is the mass of 1.28×10^8 atoms of Ne?

Molar Mass of Compounds
Let's Practice!

What is the molar mass of aluminum hydroxide, $Al(OH)_3$?

Molar Mass of Compounds
Let's Practice!

How many moles of $TiCl_4$ are there in 12.5 g of titanium(IV) chloride?

Molar Mass of Compounds
Let's Practice!

What is the mass of 1.23 mol of PH_3?

Molar Mass of Compounds
Let's Practice!

How many molecules of H_2O_2 are there in 0.759 g of the compound?

Percent Composition of Compounds
Let's Practice!

Calculate the percent composition of O in H_2O_2.

Percent Composition from Experimental Data
Let's Practice!

Aluminum chloride forms by reaction of 13.43 g of Al with 53.18 g of chlorine.
What is the percent composition of Cl in the compound?

Calculating Empirical Formulas
Let's Practice!

Calculate the empirical formula for a compound that contains 56.68% K, 8.68% C and 34.73% O.

Calculating the Molecular Formula from the Empirical Formula
Let's Practice!

A compound with the empirical formula NO_2 was found to have a molar mass of 92.00 g. What is the molecular formula?

Calculating Empirical Formulas
Let's Practice!

Calculate the empirical formula for a compound that contains 2.233 g Fe and 1.926 g S?

Calculating the Molecular Formula from the Empirical Formula
Let's Practice!

Calculate the molecular formula for a compound that contains 80.0% C and 20.0% H with a molar mass of 30.00 g.