

Moles test review

What is a mole?

Unit of measurement, 1 mole = 6.02×10^{23}

Know how to use dimensional analysis

If I have 86g of Carbon, how many moles of Carbon do I have?

7.2 moles Carbon

If I have 6.2 moles of Boron, how many grams of Boron do I have?

66.9g Boron

If I have 36g of Magnesium, how many atoms of Magnesium do I have?

8.9×10^{23} atoms Mg

If I have 7.2 moles of Na_2SO_4 How many grams do I have?

1022.4g Na_2SO_4

If I have 84 grams of MgCl_2 , how many moles do I have?

.88 moles MgCl_2

If I have 9.2×10^{21} molecules of CaCl_2 how many grams do I have?

1.69g CaCl_2

What is the empirical formula if I have 40.0% Carbon, 6.7% Hydrogen, and 53.3% Oxygen?

CH_2O

A compound contains .0130 moles Carbon, .0390 moles Hydrogen, and .0065 moles Oxygen. What is the Empirical Formula?

$\text{C}_2\text{H}_6\text{O}$

Determine the molecular formula of a compound that has an empirical formula of NO_2 and a molar mass of 92.02g.

N_2O_4