

Moles of a Substance Experiment

Name _____

Date _____

Purpose: To determine the number of moles and representative particles in a sample of a substance.

Procedure:

1. Find the mass of a piece of tin.
Calculate the moles of tin in the sample.
Calculate the number of tin atoms in the sample.
2. Find the mass of a piece of copper.
Calculate the moles of copper in the sample.
Calculate the number of copper atoms in the sample.
3. Find the mass of a tablespoon of table salt. (NaCl).
Calculate the molar mass of table salt.
Calculate the moles of sodium chloride in the sample.
Calculate the number of sodium chloride formula units in the sample.
Calculate the number of sodium ions
4. Find the mass of a tablespoon of sucrose ($C_6H_{12}O_6$).
Calculate the molar mass of sucrose.
Calculate the moles of sucrose in the sample.
Calculate the number of sucrose molecules in the sample.

Results:

Tin

Mass of Tin:

Moles of Tin:

Atoms of Tin:

Copper

Mass of Copper:

Moles of Copper:

Atoms of Copper:

Sodium Chloride

Mass of sodium chloride:

Molar mass of sodium chloride:

Moles of sodium chloride:

Formula Units of sodium chloride:

Ions of Sodium:

Sucrose

Mass of sucrose:

Molar mass of sucrose:

Moles of sucrose:

Molecules of sucrose: