National 5 Mathematics

Scientific Notation - Questions

Marks are indicated in brackets after each question number

2019 Paper 2 Question 4, (2)

A sesame seed weighs $3{\cdot}6\times10^{-6}$ kilograms.

The weight of a poppy seed is 8% of the weight of a sesame seed.

Calculate the weight of a poppy seed in kilograms.

Give your answer in scientific notation.

2023 Paper 2 Question 2, (3)

The mass of a helium atom is 6.64×10^{-24} grams.

A flask contains 300 grams of helium.

Calculate the number of helium atoms in this flask.

Give your answer in scientific notation, correct to 3 significant figures.

2024 Paper 2 Question 2, (3)

An ant colony occupies an area of 250 hectares.

There is an average of 1.22×10^{6} ants per hectare.

Calculate the number of ants in the colony.

Give your answer in scientific notation.

2025 Paper 2 Question 3, (2)

The mass of one atom of gold is 3.27×10^{-22} grams.

The mass of one atom of carbon is 6.1% of the mass of an atom of gold.

Calculate the mass of one atom of carbon.

Give your answer in scientific notation.