

Is it a metal?

This task is about how to test if something is a metal.

The properties of a metal are: hard, shiny, malleable, fusible, ductile and a good electrical and thermal conductor. Properties of a non-metal are: dull and don't conduct electricity.

A group of students have been given ten different solids of varying shapes and sizes. For each solid, they have been asked to find out

- whether the solid is non-metal or metal
- the relative density of the solid.

a) Outline a simple test the students could do to find out if the substances are metals or not.

b) Density can be calculated using the formula $\rho = \frac{m}{V}$.

Outline how the students could find out the mass (m) and volume (V) of the solids of varying shapes and sizes.

Mass

Volume