

Worksheet 7

Year 13 Physics

Write the answers in your Exercise Book.

In an experiment carried out by some Year 13 Physics students, the following were the results obtained in measuring the dimensions of a thin piece of glass.

- Length, $l = 10.0 \pm 0.1$ cm
- Width, $w = 4.0 \pm 0.1$ cm
- Height, $h = 5.0 \pm 0.1$ mm
- Mass, $m = 4.00 \pm 0.01$ g

1. What is the height h of the glass in centimetres, including its uncertainty? **(1 mark)**
2. Find $l + w + h$ **(1 mark)**
3. Calculate the **percentage error** in each of the following measurements:
 - (a) Length **(1 mark)**
 - (b) Width **(1 mark)**
 - (c) Height **(1 mark)**
 - (d) Mass **(1 mark)**
4. Determine the **volume** of the glass in cm^3 **(2 marks)**
5. Calculate the **density** of the glass in g/cm^3 **(2 marks)**