Metric units and appropriate precision

6 questions | 10 marks

Equivalent correct methods earn the corresponding marks.

1. Convert 3.6 m to centimetres. [1 mark]

$3.6 \times 100 = 360$.

Answer: 360 cm

2. Convert 2,750 mm to metres. [2 marks]

$1\ \text{m} = 1{,}000\ \text{mm}$.

$2{,}750 \div 1{,}000 = 2.75$.

Answer: 2.75 m

3. A small floor has area 2 m². Express this in cm². [2 marks]

Each square metre has 10,000 cm².

$2 \times 10{,}000 = 20{,}000$.

Answer: 20,000 cm²

4. A jug holds 1.25 L. Express this capacity in mL. [1 mark]

$1.25 \times 1{,}000 = 1{,}250$.

Answer: 1,250 mL

5. Round 2.384 m to the nearest centimetre. [2 marks]

A centimetre is 0.01 m.

The third decimal is 4, so keep the hundredths digit.

Answer: 2.38 m, or 238 cm

6. A student reports a classroom door as 198.37291 cm high after measuring with a ruler marked in whole centimetres. Explain a more sensible report. [2 marks]

The instrument does not justify all the decimal places.

Round to a precision consistent with whole-centimetre readings.

Answer: About 198 cm