2.11-3 Perimeter, Area and Volume: Practice Set 3: 10-minute Pack

GL ASSESSMENT GL · Calculators not allowed · about 10 minutes

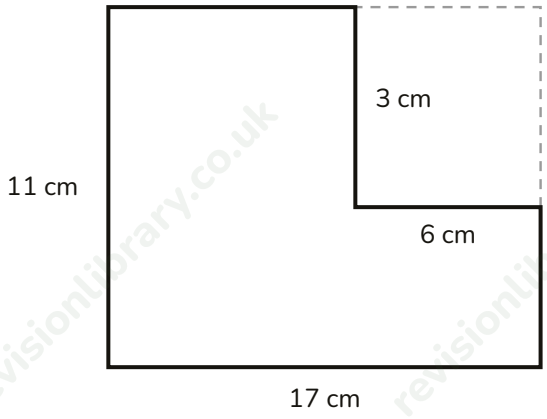
Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 The diagram shows an L-shaped decking area formed from a 17 cm by 11 cm rectangle with a 6 cm by 3 cm rectangle removed from the top right corner (dimensions shown are the outer rectangle sides and the notch removed; not drawn to scale).

Diagram NOT accurately drawn



(a) Calculate the perimeter of the L-shape. **(3)**

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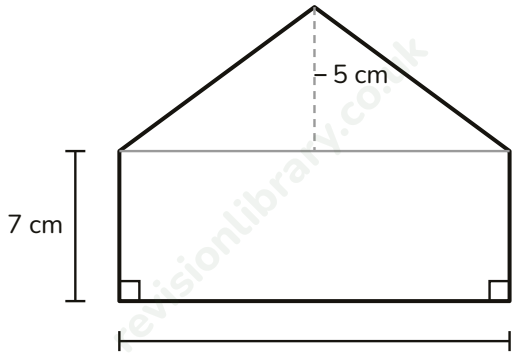
(b) Calculate the area of the L-shape. **(3)**

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2 A garden trellis panel is made from a rectangle with a triangle on top, forming a simple house-shaped outline. The rectangular part is 14 cm wide and 7 cm tall. The triangular top has a base of 14 cm and a perpendicular height of 5 cm. Calculate the total area of the panel.

Diagram NOT accurately drawn



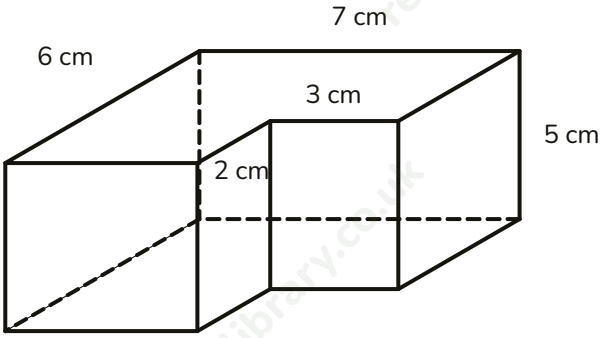
(not to scale)

(3)

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3 A solid wooden block measures 7 cm by 6 cm by 5 cm. A smaller cuboid measuring 3 cm by 2 cm by 5 cm is cut out of one vertical edge, running the full height of the block. Calculate the volume of the remaining solid.

Diagram NOT accurately drawn



Not to scale

(4)

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Mark scheme · 2.11-3 Perimeter, Area and Volume: Practice Set 3: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

(a) missing lengths found: 11 - 3 = 8 cm and 17 - 6 = 11 cm oe	**M1**
(a) all six sides added: 17 + 8 + 6 + 3 + 11 + 11	**M1**
(a) 56 cm cao	**A1**

(a) Answer: 56 cm

(b) large rectangle area 17 x 11 = 187 cm²	**M1**
(b) removed rectangle area 6 x 3 = 18 cm²	**M1**
(b) 169 cm² cao (ft 187 - their removed area)	**A1**

(b) Answer: 169 cm^2

Question 2

rectangle area 14 x 7 = 98 cm²	**M1**
triangle area 0.5 x 14 x 5 = 35 cm²	**M1**
133 cm² cao (ft their two areas added)	**A1**

Answer: 133 cm^2

Question 3

large cuboid volume 7 x 6 x 5 = 210 cm³	**M1**
removed cuboid volume 3 x 2 x 5 = 30 cm³	**M1**
210 - 30 seen (ft)	**M1**
180 cm³ cao	**A1**

Answer: 180 cm^3

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