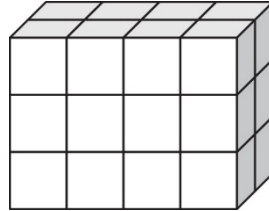


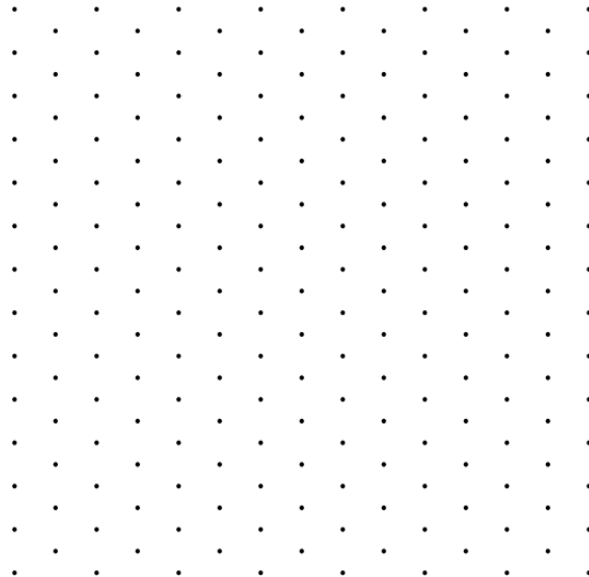
NAME

Non-calculator

1 A cuboid is made by joining together some centimetre cubes as shown below.



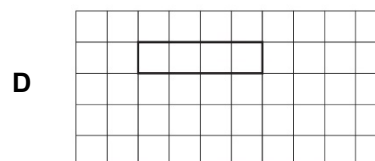
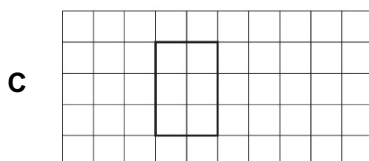
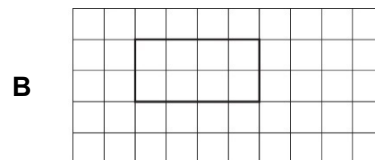
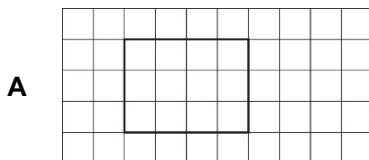
a Draw the cuboid on isometric paper.



(1 mark)

b One of the drawings below represents a **plan view** of the cuboid.

Circle the correct drawing.



(1 mark)

2 Write $<$, $>$ or $=$ for each pair of quantities.

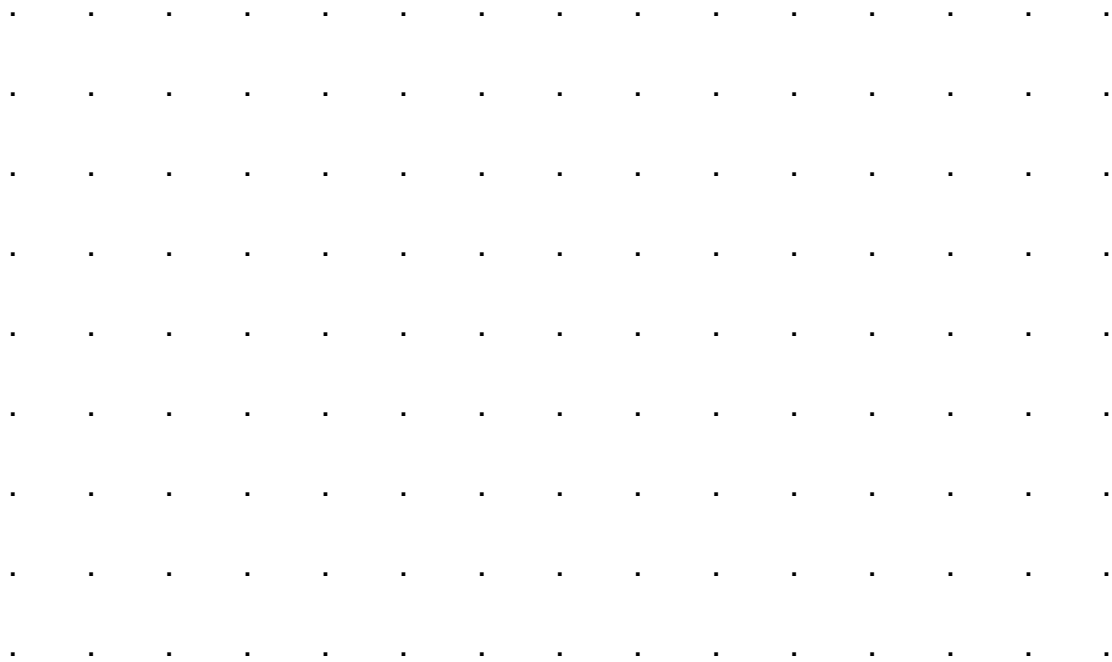
a 1 km 30 m 1.3 km

(1 mark)

b 3.2 m 3200 mm

(1 mark)

3 Sketch a net for a square based pyramid.



(2 marks)

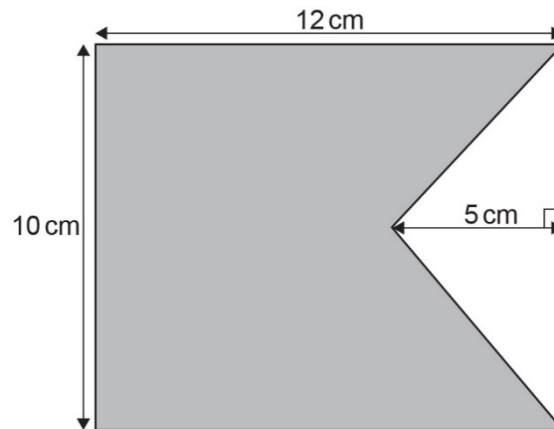
4 A cube has a side of length 4 cm.

Calculate the surface area of the cube.

.....cm²

(2 marks)

- 5 The diagram shows a piece of card in the shape of a rectangle with length 12 cm and width 10 cm.
A triangle of perpendicular height 5 cm is cut from the card.



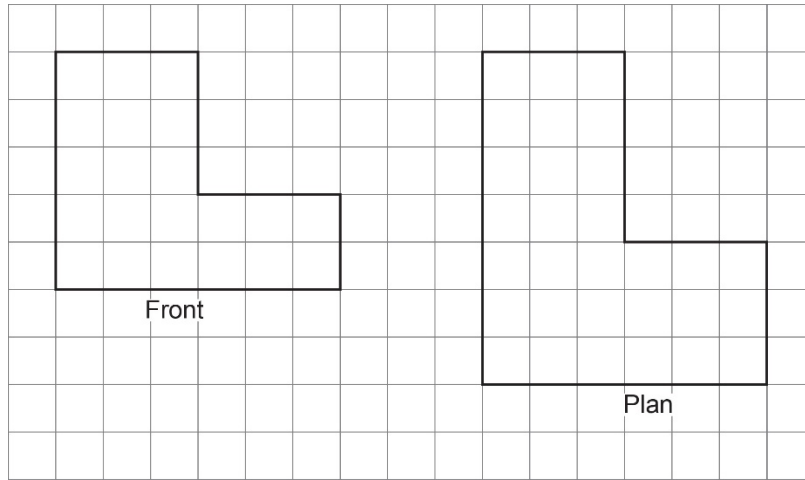
Enzo calculates the shaded area like this:

$$\begin{aligned}
 \text{shaded area} &= \text{area of rectangle} + \text{area of two triangles} \\
 &= 10 \times 7 + \frac{1}{2} \times 5 \times 5 + \frac{1}{2} \times 5 \times 5 \\
 &= 70 + 12.5 + 12.5 \\
 &= 95 \text{ cm}^2
 \end{aligned}$$

Show a different method to calculate the same shaded area.

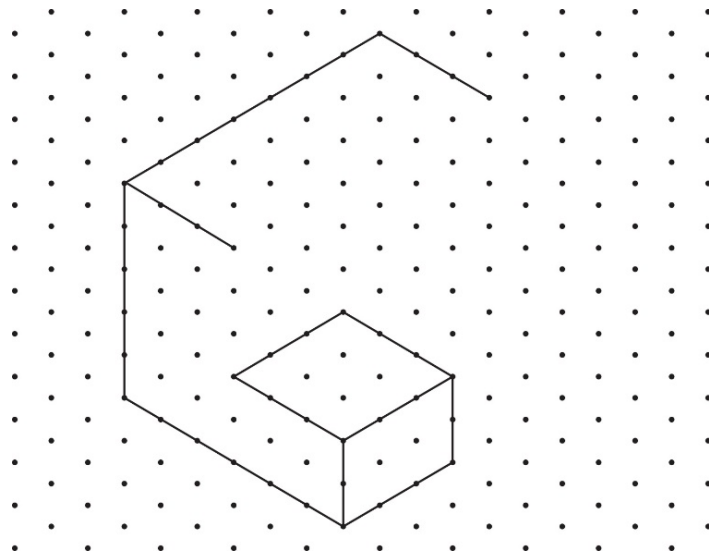
(2 marks)

6 The front elevation and plan view of a solid are drawn accurately on a centimetre grid.



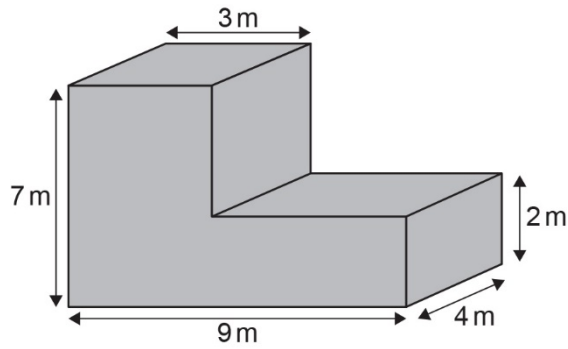
The solid has been partly drawn on isometric paper.

Complete this drawing of the solid.



(2 marks)

7 Here is a solid L-shaped prism.



a Calculate the volume of this solid.

.....m³
(3 marks)

b Calculate the total surface area of this solid.

..... m²
(4 marks)



Calculator

8 1 kg \approx 2.2 lbs

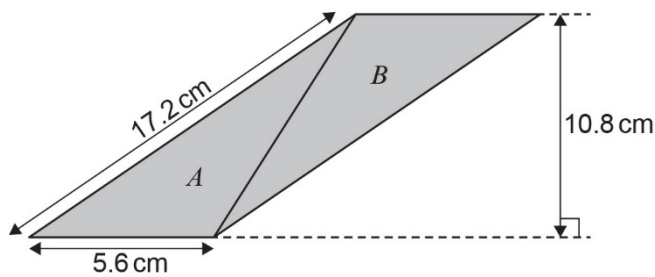
Simon weighs 165 lbs.

Estimate Simon's weight in kilograms.

.....kg

(1 mark)

9 The diagram below shows triangles *A* and *B* joined together to make a parallelogram.



a Calculate the area of triangle *A*.

.....cm²

(2 marks)

b Show that the area of *A* is equal to the area of *B*.

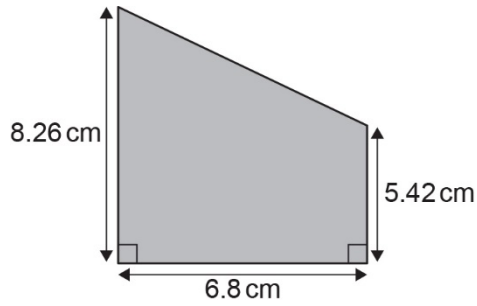
(1 mark)

10 Calculate the volume of a cube with side length 7 cm.

..... cm³

(1 mark)

11 Calculate the area of the trapezium.



.....cm²
(2 marks)

12 A cube has a total surface area of 57.66 cm².

a Find the area of one face of the cube.

.....cm²
(1 mark)

b Find the length of one edge of the cube.

..... cm
(1 mark)

13 Calculate the surface area of a cube of side length 0.8 m.

.....m²

(2 marks)

Overall mark	/30
---------------------	------------