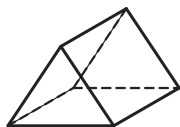


1 Faces, edges and vertices

This solid is a triangular prism.

- a) Complete the table.
b) How many of its faces are rectangles?

Faces	Edges	Vertices
5	9	6

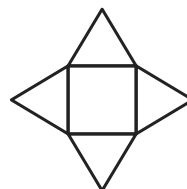


- a) 9 edges and 6 vertices
b) 3 rectangles

2 Faces, edges and vertices

This is the net of a solid. It has a square and four triangles.

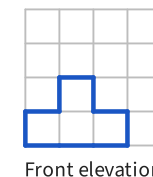
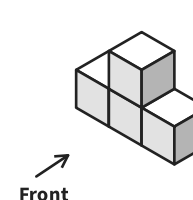
- a) Write down the name of the solid.
b) How many faces does the solid have?



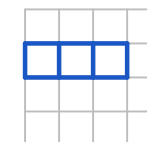
- a) a square based pyramid
b) $1 + 4 = 5$ faces

3 Plans and elevations

The solid is made from 4 cubes. On the grids, draw a) the front elevation and b) the plan.



Front elevation



Plan

- a) and b) drawn on the grids

4 Plans and elevations: drawing the solid

- a) How many cubes make the solid with these three views?
b) Draw the solid on the isometric paper. One cube is drawn.



- a) 3 cubes b) drawn above

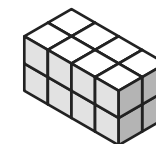
Three dimensional shapes revision mat answers

Foundation B

5 Volume of prisms

This cuboid is made from centimetre cubes.

- a) What is its volume?
b) Volume = length $\times$ width $\times$ height.
A box is 5 cm long, 3 cm wide and 2 cm high.
Work out its volume.

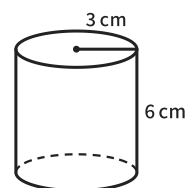


- a) $4 \times 2 \times 2 = 16 \text{ cm}^3$
b) $5 \times 3 \times 2 = 30 \text{ cm}^3$

6 Volume of prisms

Volume of a cylinder = area of circle $\times$ height

- a) Area = $\pi \times \text{radius}^2$. Work out the area of the circle on the top. Give your answer to 1 decimal place.
b) Work out the volume of the cylinder to 1 decimal place.



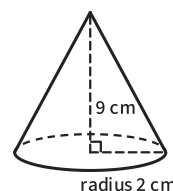
Not drawn accurately

- a) $\pi \times 3^2 = 28.3 \text{ cm}^2$
b) $28.3 \dots \times 6 = 169.6 \text{ cm}^3$

7 Volume of cones, spheres and pyramids

Volume of a cone = $\frac{1}{3} \times \text{area of base} \times \text{height}$

- a) Area = $\pi \times \text{radius}^2$. Work out the area of the circle at the base. Give your answer to 1 decimal place.
b) Work out the volume of the cone to 1 decimal place.

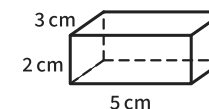


- a) $\pi \times 2^2 = 12.6 \text{ cm}^2$
b) $12.6 \dots \times 9 \div 3 = 37.7 \text{ cm}^3$

8 Surface area of cuboids

- a) Complete the table.
b) Work out the total surface area of the cuboid.

Face	Area (cm^2)	Number
Front	$5 \times 2 = 10$	2
Top	$5 \times 3 = 15$	2
Side	$3 \times 2 = 6$	2



- b) $20 + 30 + 12 = 62 \text{ cm}^2$