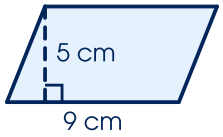
GCSE HIGHER · REVISION MAT 2

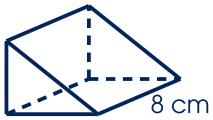
Area and volume of shapes and prisms

1 Find the area of this parallelogram.



2 A prism has cross-sectional area 20 cm² and length 8 cm.

Find its volume.



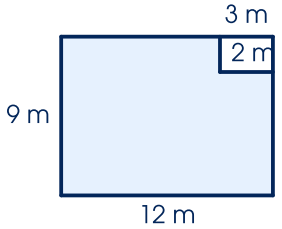
3 Explain why the area of a parallelogram is base × perpendicular height.

4 A garden is 12 m by 9 m.

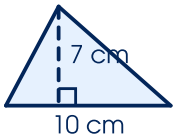
A 3 m by 2 m patio is not turfed.

Turf costs £4.50 per m².

Find the cost of turfing the garden.



5 Show that a triangle with base 10 cm and height 7 cm has area 35 cm².

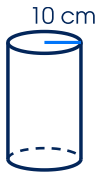


6 A 50 cm × 40 cm × 30 cm tank is half full of water.

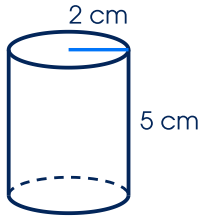
The water is poured into a cylinder of radius 10 cm.

How deep is the water?





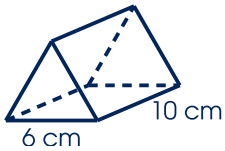
7 Show that a cylinder with radius 2 cm and height 5 cm has volume 20π cm³.



8 A prism has an equilateral triangle cross-section of side 6 cm.

It is 10 cm long.

Find its exact volume.



ANSWERS · REVISION MAT 2

Area and volume of shapes and prisms

1 9×5

45 cm²

2 **160 cm³**

3 **Cut a triangle from one end and move it to the other to make a rectangle.**

4 $108 - 6 = 102$ m²

£459

5 $\frac{1}{2} \times 10 \times 7$

= 35

6 30 000 cm³

$30\,000 \div 100\pi$

95.5 cm

7 $\pi \times 4 \times 5$

$= 20\pi$

8 Height $3\sqrt{3}$, area $9\sqrt{3}$

$90\sqrt{3}$ cm³

Mr&Mrs MATHS