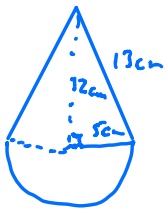
Homework Review



$r = 5\text{cm}$

$h = 12\text{cm}$

$L = 13\text{cm}$

Find volume and surface area

Cone $V = \frac{1}{3}\pi r^2 h$

Curved surface area $= \pi r L$

Sphere $V = \frac{4}{3}\pi r^3$

Sphere surface area $= 4\pi r^2$

Vol = Cone + Hemisphere

$\frac{1}{3}\pi r^2 h + \frac{2}{3}\pi r^3$

$\frac{1}{3} \times \pi \times 5^2 \times 12 + \frac{2}{3} \times \pi \times 5^3 = \frac{550\pi}{3} = 576\text{cm}^3$

Surface Area = cone curved surface + hemisphere

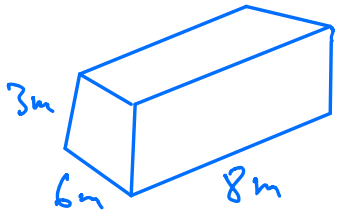
$= \pi r L + 2\pi r^2$

$= \pi \times 5 \times 13 + 2 \times \pi \times 5^2 = 115\pi$

$= 361\text{cm}^2$

Exercise

Cuboid 8m x 6m x 3m



Find volume and surface area

A tin of paint covers $4.2\ m^2$ and costs £2.30. How much will it cost to paint all faces of the cuboid?

Sand costs £1.44 per m^3. How much will it cost to fill cuboid?

Volume = $8 \times 6 \times 3 = 144\ m^3$

Surface Area

Front	8×6	$= 48$
Top	8×3	$= 24$
End	6×3	$= 18$
		$90 \times 2 = 180\ m^2$

Cost of paint

$180 \div 4.2 = 42.85 = 43$ tins

$43 \times £2.30 = £98.90$

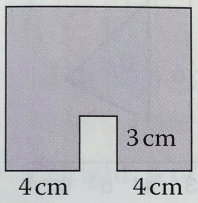
Cost of sand $144 \times £1.44 = £207.36$

Review of Area of Compound Shapes

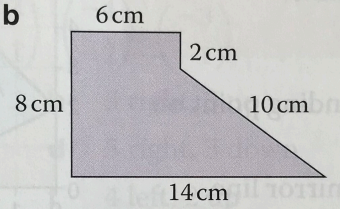
Exercise 7.2A

1 Calculate the perimeter and area of each shape. State the units of your answers. 5

a

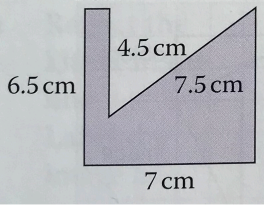


b



6

c



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