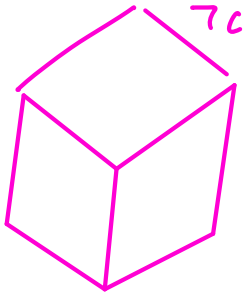
Area and Volume

Cube



Find volume and Surface Area

Vol = $7 \times 7 \times 7 = 343 \text{ cm}^3$

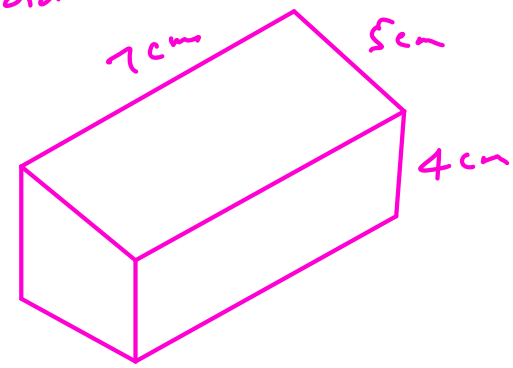
Surface Area 6 faces each 7×7

$= 7 \times 7 \times 6$

$= 294 \text{ cm}^2$

$\begin{array}{r} 49 \\ \times\ 6 \\ \hline 294 \end{array}$

Cuboid



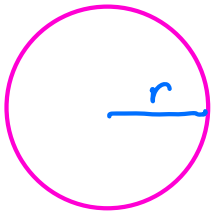
Find volume and surface area

Vol = $7 \times 5 \times 4$

$= 140 \text{ cm}^3$

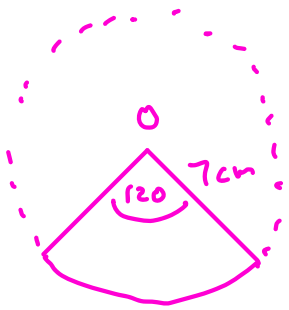
Top and Bottom	$2 \times 7 \times 5$	=	70
Front and Back	$2 \times 7 \times 4$	=	56
2 ends	$2 \times 5 \times 4$	=	40 +
			166 cm^2

Area and Perimeter of Sector



Area of Circle $= \pi r^2$

Circumference $= 2\pi r$



Area of sector $= \frac{120}{360} \times \pi r^2$

$= \frac{120}{360} \times \pi \times 7^2$

$= \frac{1}{3} \times \pi \times 7^2$

$= \frac{49\pi}{3} \text{ cm}^2$

Perimeter $= \frac{120}{360} \times 2\pi r + 2r$

$= \frac{1}{3} \times 2\pi \times 7 + 14 = \frac{14\pi}{3} + 14 \text{ cm}$

Exercise

Find area and perimeter in terms of π

Area $= \frac{60}{360} \times \pi r^2$

$= \frac{1}{6} \times \pi \times 6^2$

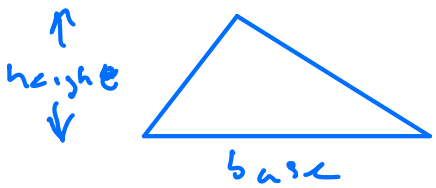
$= 6\pi \text{ cm}^2$

Perimeter $= \frac{60}{360} \times 2\pi r + 2r$

$= \frac{1}{6} \times 2\pi \times 6 + 12$

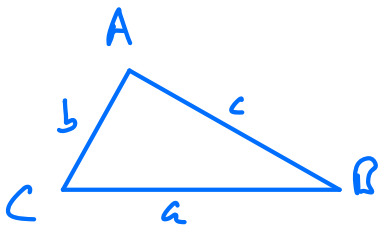
$= 2\pi + 12 \text{ cm}$

Area of Triangle



$\text{Area} = \frac{1}{2} \text{base} \times \text{height}$

Also



$\text{Area} = \frac{1}{2} ab \sin C$