

Mensuration

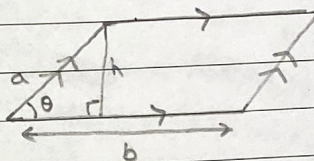
Rectangle: area = $l \times b$, perimeter = $2(l+b)$

Trapezium: area = $\frac{1}{2} \times (a+b) \times h$

Kite: $\frac{1}{2} \times$ (product of diagonals)

Triangle: area = $\frac{1}{2} \times b \times h$, perimeter = $a+b+c$

Parallelogram: area = $b \times h$
 = $\text{base} \times \text{height}$
 : perimeter = $2(a+b)$



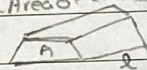
Circle: circumference = $2\pi r$
 area = πr^2

Arc length, $l = \frac{\theta}{360} \times 2\pi r$

sector area = $\frac{\theta}{360} \times \pi r^2$

Prism: TSA = (perimeter of cross-section) $\times l$ + 2 (Area of cross-section)

prism: volume = $A \times l$
 = Area of cross-section $\times l$



cylinder: volume = $\pi r^2 h$

Pyramid: volume = $\frac{1}{3}$ (base area) \times height

cone: volume = $\frac{1}{3} \pi r^2 h$

sphere: Volume = $\frac{4}{3} \pi r^3$, Hemisphere: volume = $\frac{2}{3} \pi r^3$

cylinder: curved surface area = $2\pi r h$

sphere: surface area = $4\pi r^2$

cone: CSA = $\pi r l$

cuboid: surface area = $2(lb + bh + lh)$

Frustum: $\frac{\pi}{3} h (R^2 + r^2 + Rr)$ ← volume