

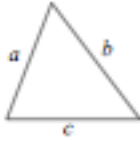



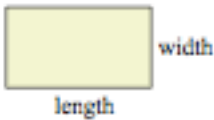
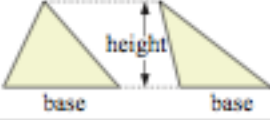

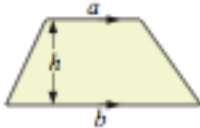

## PERIMETER FORMULAE

The distance around a closed figure is its **perimeter**.

For some shapes we can derive a formula for perimeter. The formulae for the most common shapes are given below:

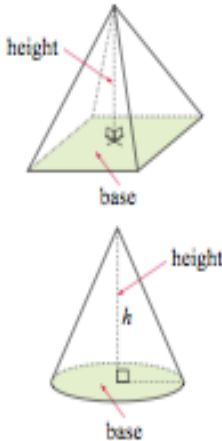
			
square $P = 4l$	rectangle $P = 2(l + w)$	triangle $P = a + b + c$	circle $C = 2\pi r$ or $C = \pi d$

## AREA FORMULAE

Shape	Figure	Formula
Rectangle		Area = length $\times$ width
Triangle		Area = $\frac{1}{2}$ base $\times$ height
Parallelogram		Area = base $\times$ height
Trapezium or Trapezoid		Area = $\left(\frac{a + b}{2}\right) \times h$
Circle		Area = $\pi r^2$

## VOLUME FORMULAE


**Pyramids and cones**



height

base

**Spheres**




Volume of a sphere =  $\frac{4}{3}\pi r^3$

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

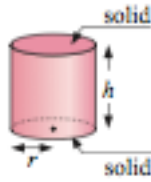
## SURFACE AREA FORMULAE

**SPHERE**



Area,  
 $A = 4\pi r^2$

**Solid cylinder**




solid

solid

$A = 2\pi r h + 2\pi r^2$   
(two ends)

**Solid cone**



$A = \pi r s + \pi r^2$   
(solid)