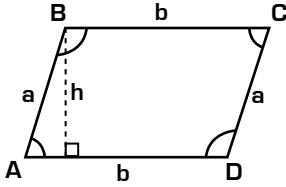# MATHEMATICS *area & volume*

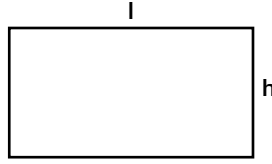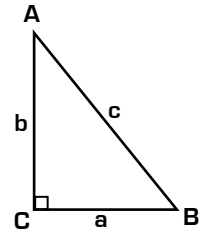## PARALLELOGRAM
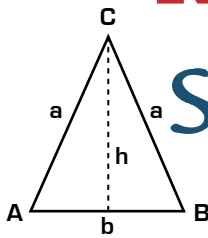
Area of ABCD = bh

RECTANGLE

Perimeter = 2(l + h)
Area = l x h

RIGHT TRIANGLE

Area = ab/2
$c^2 = a^2 + b^2$ *(Pythagorean Theorem)*
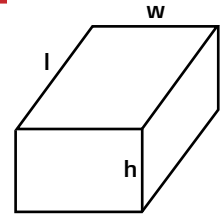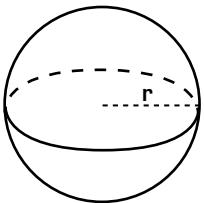
ISOSCELES TRIANGLE

Area = bh/2

CIRCLE

Circumference of a circle = $2\pi r$
Area of a circle = πr^2

RECTANGULAR PRISM

Surface area of a prism =
2(wl + lh + wh)
Volume of a prism = l x w x h

SPHERE

Surface area of a sphere
= $4\pi r^2$
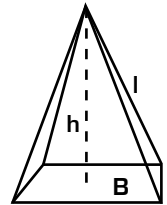Volume of a sphere
= $4\pi r^3/3$

CYLINDER

Surface area of a
cylinder = $2\pi rh + 2\pi r^2$
Volume of a cylinder
= $\pi r^2 h$

CONE

Surface area of a cone
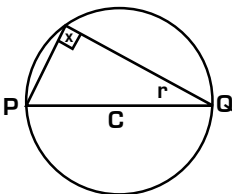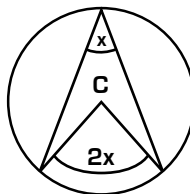= $\pi rl + \pi r^2$ *(l=slant height)*
Volume of a cone
= $\pi r^2 h/3$

PYRAMID

Surface area of a pyramid
= B + Lateral area *(Lateral area=sum of triangular faces)*
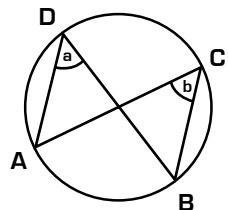Volume of a pyramid
= Bh/3 *(B = area of base)*

CIRCLE THEOREMS

$\angle x = 90°$
(PQ is the diameter)

C is the center of the circle

$\angle a = \angle b$
(Both angles intercept arc AB)