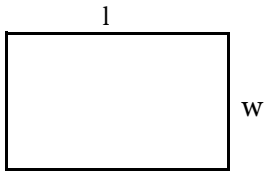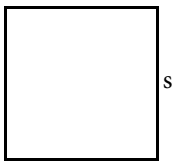## A-2 Geometry
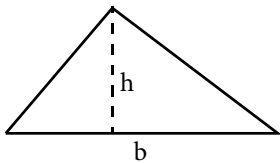
Plane Geometry
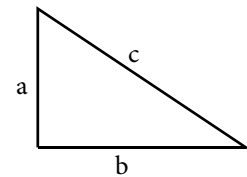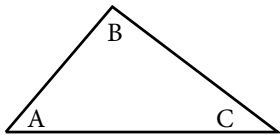
l

w

Rectangle
Area: A = lw
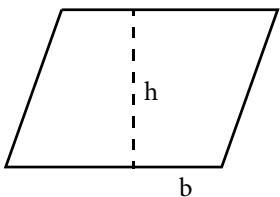Perimeter: P = 2l + 2w

s

Square
Area: A = s^2
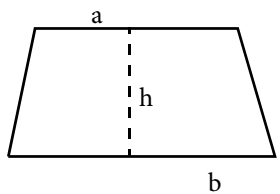Perimeter: P = 4s

h

b

Triangle
Area: A = $^1/_2$bh
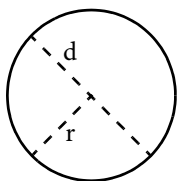Sum of angles:
A + B + C = 180°

B

A

C

c

a

b

Right Triangle
Pythagorean Theorem:
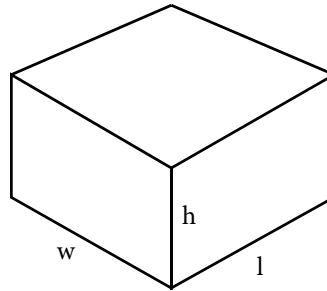$a^2 + b^2 = c^2$

h

b

Parallelogram
Area: A = b • h

a

h

b
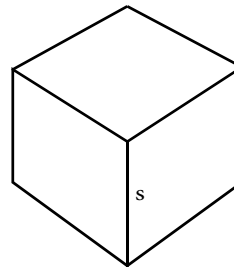
Trapezoid
Area: A = 1/2h(a + b)

d

r

Circle
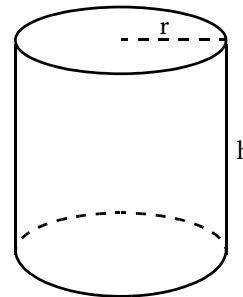Area: A = πr^2
Circumference: C = πd = 2πr
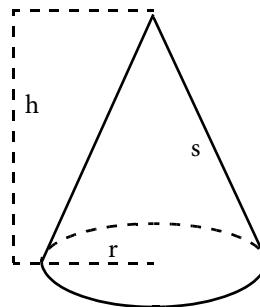
Solid Geometry

h

w

l

Rectangular Solid
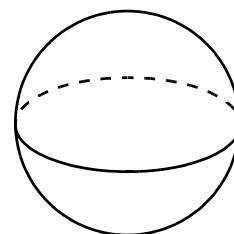Volume: V = lwh

s

Cube
Volume: V = s^3

r

h

Right Circular Cylinder
Volume: V = $\pi r^2 h$
Lateral Surface Area:
L = 2πrh
Total Surface Area:
S = 2πrh + 2πr^2

h

s

r

Right Circular Cone
Volume: V = $^1/_3 \pi r^2 h$
Lateral Surface Area:
L = πrs
Total Surface Area:
S = πr^2 + πrs

Sphere
Volume: V = $^4/_3 \pi r^3$
Surface Area: S = $4\pi r^2$