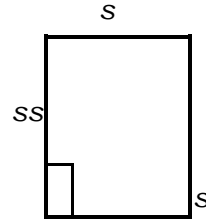


# Geometric Formulas

**Square:**

Perimeter:  $P = 4s$

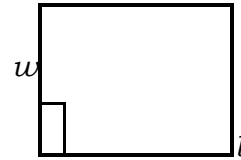
Area:  $A = s^2$



**Rectangle:**

Perimeter:  $P = 2l + 2w$

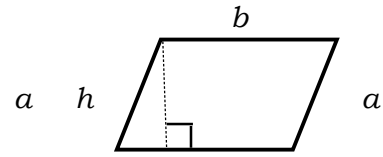
Area:  $A = lw$



**Parallelogram:**

Perimeter:  $P = 2a + 2b$

Area:  $A = bh$

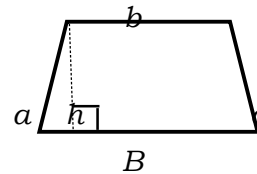


*b*

**Trapezoid:**

Perimeter:  $P = a + b + c + B$

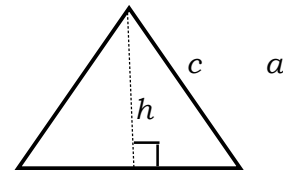
Area:  $A = \frac{1}{2}h(b + B)$



**Triangle:**

Perimeter:  $P = a + b + c$

Area:  $A = \frac{1}{2}bh$

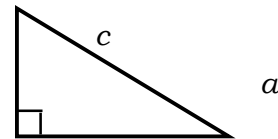


*b*

**Right Triangle:**

Pythagorean Theorem:

$$a^2 + b^2 = c^2$$



*b*

**Circle:**

Diameter:  $d = 2r$

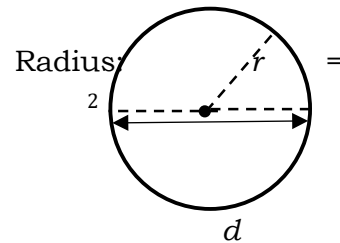
*d*

*r*

Circumference:  $C = \pi d$

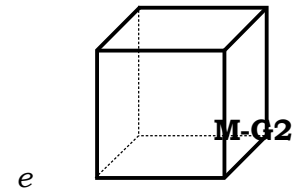
$C = 2\pi r$

Area:  $A = \pi r^2$



\*Use 3.14 as the approximate value of  $\pi$

**Cube:** Volume:  $V = e^3$



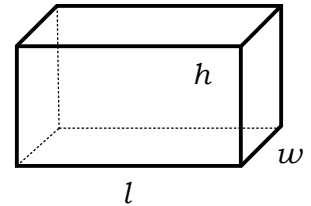
Surface Area:  $S = 6e^2$

$e$

**Rectangular Solid:** Volume:  $V = lwh$

Surface Area:

$$S = 2lw + 2lh + 2wh$$

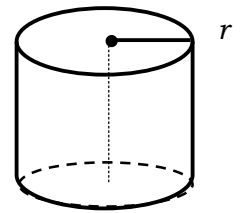


**Right Circular Cylinder:** Volume:  $V = Bh$

Surface Area:

$$S = 2\pi rh + 2\pi r^2$$

$h$   $B$  is the area of the base or  $B = \pi r^2$ .

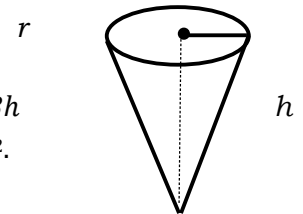


**Cone:**

Volume:

$$V = \frac{1}{3} Bh$$

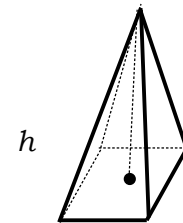
$B$  is the area of the base or  $B = \pi r^2$ .



**Pyramid:**

Volume:  $V = \frac{1}{3} Bh$

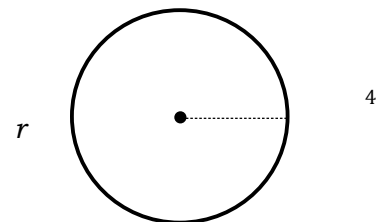
$B$  is the area of the base.



**Sphere:**

Volume:  $V = \frac{4}{3}\pi r^3$

Surface Area:  $S = 4\pi r^2$



\*Use 3.14 as the approximate value of  $\pi$

Spring 2019

