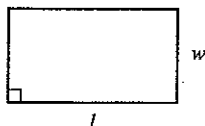


# GEOMETRY FORMULAS, ANGLES, AND ORDER OF OPERATIONS

## Rectangle

Perimeter:  $P = 2l + 2w$

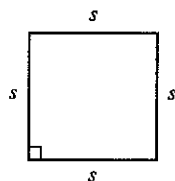
Area:  $A = lw$



## Square

Perimeter:  $P = 4s$

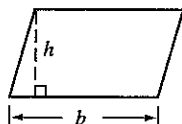
Area:  $A = s^2$ , which means  $s \cdot s$



## Parallelogram

Perimeter: Add the lengths of the sides.

Area:  $A = bh$

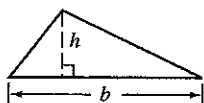


## Triangle

Perimeter: Add the lengths of the sides.

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

or  $A = 0.5bh$



## Circle

diameter:  $d = 2r$

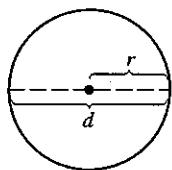
radius:  $r = \frac{d}{2}$

Circumference:  $C = \pi d$

or  $C = 2\pi r$

Area:  $A = \pi r^2$ , which means  $\pi \cdot r \cdot r$

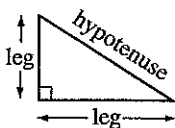
Use 3.14 as the approximate value of  $\pi$ .



## Right Triangle (one 90° angle)

hypotenuse =  $\sqrt{(\text{leg})^2 + (\text{leg})^2}$

leg =  $\sqrt{(\text{hypotenuse})^2 - (\text{leg})^2}$

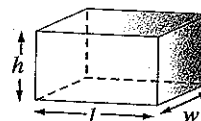


## Rectangular Solid

Volume:  $V = lwh$

Surface Area:

$SA = 2lw + 2lh + 2wh$

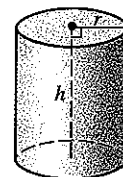


## Right Circular Cylinder

Volume:  $V = \pi r^2 h$

Surface Area:  $SA = 2\pi rh + 2\pi r^2$

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

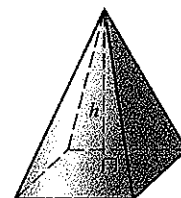


## Pyramid

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

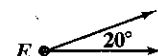
or  $V = \frac{Bh}{3}$

$B$  is area of the base.

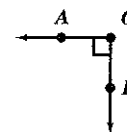


## Classifying Angles

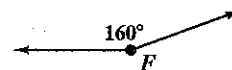
Acute angles measure less than 90°.



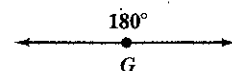
Right angles measure *exactly* 90°.



Obtuse angles measure more than 90° but less than 180°.



Straight angles measure *exactly* 180°.



## Order of Operations

1. Work inside **parentheses** or other grouping symbols.
2. Simplify expressions with **exponents** and find any **square roots**.
3. Do the remaining **multiplications** and **divisions** as they occur from left to right.
4. Do the remaining **additions** and **subtractions** as they occur from left to right.