
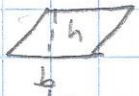

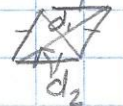



# Area Formulas for Plane Figures

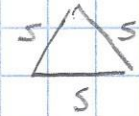
Rectangle:  $A = bh$  

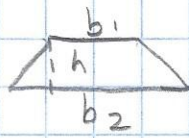
Parallelogram:  $A = bh$  

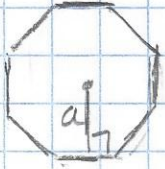
Square:  $A = s^2$  

Rhombus:  $A = \frac{1}{2}d_1d_2$  

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

Equilateral  $\Delta$ :  $\frac{1}{4}s^2\sqrt{3}$  

Trapezoid:  $A = \frac{1}{2}h(b_1 + b_2)$  

Regular Polygon  
 $A = \frac{1}{2}ap$  

$p = \text{perimeter}$

Special Formula for Regular Hexagon:  $A = \frac{3}{2}s^2\sqrt{3}$

Circle:  $A = \pi r^2$  

## Surface Area & Volume for 3-D shapes

$p = \text{perimeter of base}$   
 $h = \text{height of figure}$   
 $TA = \text{total area}$   
 $l = \text{slant height on pyramid \& cone}$

$B = \text{area of base}$   
 $L.A = \text{lateral area (area of sides)}$   
 $V = \text{volume}$   
 (given in cubic units)

Prism:  
 $L.A = ph$   
 $TA = 2B + LA$   
 $V = Bh$

Cylinder:  
 $L.A = 2\pi rh$   
 $TA = 2\pi r^2 + 2\pi rh$   
 $V = \pi r^2 h$

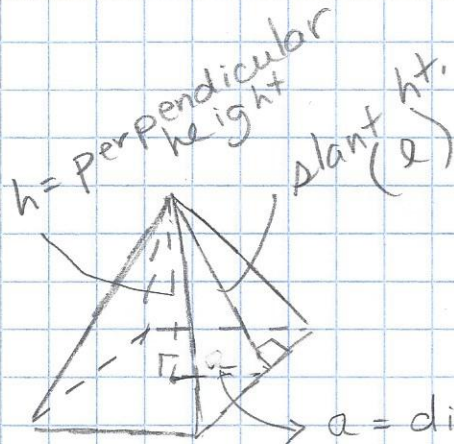
Pyramid:  
 $L.A = \frac{1}{2}pl$   
 $TA = B + LA$   
 $V = \frac{1}{3}Bh$

Cone:  
 $LA = \pi rl$   
 $TA = \pi r^2 + \pi rl$   
 $V = \frac{1}{3}\pi r^2 h$

Cube:  
 $T.A. = 6s^2$   
 $V = s^3$

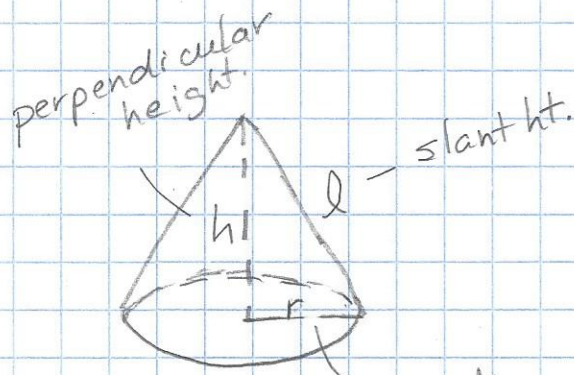
Sphere:  
 $SA = 4\pi r^2$   
 $V = \frac{4}{3}\pi r^3$

# Pyramid + Cone



$$a^2 + h^2 = l^2$$

a = distance from center to base edge



$$r^2 + h^2 = l^2$$

radius of base