#### **Measures of Pressure**

1 Pound Per Square Inch = 144 Pounds Per Square Foot = 0.068 Atmosphere = 2.042 Inches of Mercury at  $62^{\circ}F$  = 27.7 Inches of Water at  $62^{\circ}F$  = 2.31 Feet of Water at  $62^{\circ}F$ .

1 Atmosphere = 30 Inches of Mercury at **62°F** = 14.7 Pounds Per Square Inch = 2116.3 Pounds Per Square Foot = 33.95 Feet of Water at **62°F**.

1 Foot of Water at **62°F** = 62.355 Pounds Per Square Foot = 0.433 Pounds Per Square Inch.

1 Inch of Mercury at 62°F = 1.132 Feet of Water = 13.58 Inches of Water = 0.491 Pounds Per Square Inch.

Column of Water 12 Inches High, 1 Inch in Diameter = .341 Pounds

If temperature is kept constant, the volume of a given mass of gas is inversely proportional to the pressure which is exerted upon it.

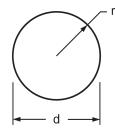
## **Length Conversion Constants**

Millimeters x .039370 = Inches Meters x 39.370 = Inches Meters x 3.2808 = Feet Meters x 1.09361 = Yards Kilometers x 3,280.8 = Feet Kilometers x .62137 = Statute Mile Kilometers x .53959 = Nautical Miles Inches x 25.4001 = Millimeters
Inches x .0254 = Meters
Feet x .30480 = Meters
Yards x .91440 = Meters
Feet x .0003048 = Kilometers
Statute Miles x 1.60935 = Kilometers
Nautical Miles x 1.85325 = Kilometers

## **Weight Conversion Constants**

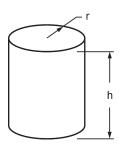
Grams x .03527 = Ounces (Avd.) Grams x .033818 = Fluid Ounces (Water) Kilograms x 35.27 = Ounces (Avd.) Kilograms x 2.20462 = Pounds (Avd.) Ounces (Avd.) x 28.35 = Grams Fluid Ounces (Water) x 29.57 = Grams Ounces (Avd.) x .02835 = Kilograms Pounds (Avd.) x .45359 = Kilograms

## Circumference of a Circle



Circumference = 
$$2\pi r = \pi d = 3.14159 d$$
  
Area =  $\pi r^2 = \pi \frac{d^2}{4} = .78539d^2$ 

# **Right Cylinder**



$$r = radius$$
  
 $h = length$   
Volume =  $\pi r^2 h$   
Surface Area =  $2 \pi r (r + h)$ 

If end planes are parallel but not at 90° to h, the same formulas apply, but a slice at 90° through the cylinder must be used to determine r.