

## AREA FORMULAS

triangle .....  $A = \frac{1}{2}bh$

rectangle .....  $A = bh$

square .....  $A = s^2$

trapezoid .....  $A = \frac{1}{2}h(b_1 + b_2)$

## CIRCLE FORMULAS

$$C = 2\pi r$$

$$A = \pi r^2$$

## VOLUME FORMULAS

cube .....  $V = s^3$   
( $s$  = length of an edge)

rectangular prism .....  $V = lwh$

OR

$$V = Bh$$

( $B$  = area of the base)

sphere .....  $V = \frac{4}{3}\pi r^3$

right circular cylinder .....  $V = \pi r^2 h$

right circular cone .....  $V = \frac{1}{3}\pi r^2 h$

right square pyramid .....  $V = \frac{1}{3}s^2 h$

## LATERAL SURFACE AREA FORMULAS

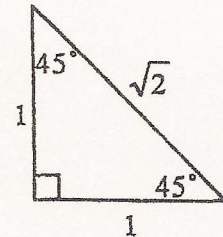
rectangular prism .....  $LA = 2(hw) + 2(lh)$

right circular cylinder .....  $LA = 2\pi rh$

right circular cone .....  $LA = \pi r\ell$

right square pyramid .....  $LA = 2s\ell$

( $\ell$  = slant height)



## TOTAL SURFACE AREA FORMULAS

cube .....  $SA = 6s^2$

rectangular prism .....  $SA = 2(lw) + 2(hw) + 2(lh)$

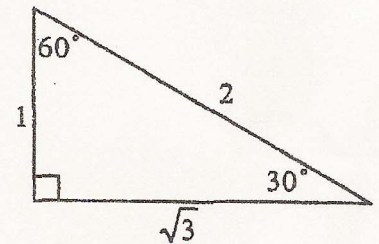
sphere .....  $SA = 4\pi r^2$

right circular cylinder .....  $SA = 2\pi r^2 + 2\pi rh$

right circular cone .....  $SA = \pi r^2 + \pi r\ell$

right square pyramid .....  $SA = s^2 + 2s\ell$

( $\ell$  = slant height)



The three basic units of the metric system are the meter, gram, and liter:

**The gram measures weight.**

**The meter measures length.**

**The liter measures capacity.**

**A millimeter is about how thick a dime is.**

**A centimeter is how wide one of your fingernails is.**

**A kilometer is a little more than half of a mile.**

## **Length**

1 centimeter (cm)	= 10 millimeters (mm)
1 inch	= 2.54 centimeters (cm)
1 foot	= 0.3048 meters (m)
1 foot	= 12 inches
1 yard	= 3 feet
1 meter (m)	= 100 centimeters (cm)
1 meter (m)	≈ 3.280839895 feet
1 furlong	= 660 feet
1 kilometer (km)	= 1000 meters (m)
1 kilometer (km)	≈ 0.62137119 miles
1 mile	= 5280 ft
1 mile	= 1.609344 kilometers (km)
1 nautical mile	= 1.852 kilometers (km)

## **Area**

1 square foot	= 144 square inches
1 square foot	= 929.0304 square centimeters
1 square yard	= 9 square feet
1 square meter	≈ 10.7639104 square feet
1 acre	= 43,560 square feet
1 hectare	= 10,000 square meters
1 hectare	≈ 2.4710538 acres
1 square kilometer	= 100 hectares
1 square mile	≈ 2.58998811 square kilometers

1 square mile = 640 acres

### **Volume**

1 US  
tablespoon = 3 US teaspoons

1 US fluid  
ounce  $\cong$  29.57353 milliliters (ml)

1 US cup = 16 US tablespoons

1 US cup = 8 US fluid ounces

1 US pint = 2 US cups

1 US pint = 16 US fluid ounces

1 liter (l)  $\cong$  33.8140227 US fluid  
ounces

1 liter (l) = 1000 milliliters (ml)

1 US quart = 2 US pints

1 US gallon = 4 US quarts

1 US gallon = 3.78541178