CONVERSIONS

1 cup = 8 fluid ounces
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts
1 gallon ≈ 3.785 liters
1 liter ≈ 0.264 gallon
1 liter = 1000 cubic centimeters

1 inch = 2.54 centimeters
1 meter ≈ 39.37 inches
1 mile = 5280 feet
1 mile = 1760 yards
1 mile ≈ 1.609 kilometers
1 kilometer ≈ 0.62 mile

1 pound = 16 ounces
1 pound ≈ 0.454 kilogram
1 kilogram ≈ 2.2 pounds
1 ton = 2000 pounds

AREA (A) FORMULAS

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

rectangle . . . . $A = lw$

parallelogram . . . . . . $A = bh$

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

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

circle . . . . $A = \pi r^2$

TOTAL SURFACE AREA (SA) FORMULAS

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

right square pyramid . . . . $SA = s^2 + 2s\ell$
                        (ℓ = slant height)
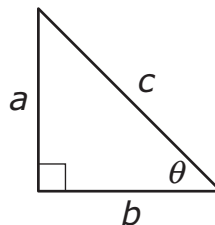
right rectangular prism . . $SA = 2(lw) + 2(hw) + 2(lh)$

VOLUME (V) FORMULAS

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

prism . . . . $V = Bh$

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

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

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

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

CIRCLE FORMULAS

pi . . . . $\pi \approx 3.14$

circumference . . . . $C = 2\pi r$ OR $C = \pi d$

area . . . . $A = \pi r^2$

RIGHT TRIANGLES

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

Trigonometric Ratios
$$\sin \theta = \frac{a}{c}$$
$$\cos \theta = \frac{b}{c}$$
$$\tan \theta = \frac{a}{b}$$

SPECIAL RIGHT TRIANGLES