

Oklahoma State Testing Program

8th Grade Mathematics Formula Sheet

UNIT CONVERSIONS

1 foot = 12 inches

1 yard = 3 feet

1 mile = 5280 feet

1 mile = 1760 yards

1 centimeter = 10 millimeters

1 meter = 100 centimeters

1 meter = 1000 millimeters

1 pound = 16 ounces

1 ton = 2000 pounds

1 kilogram = 1000 grams

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts

AREA

Square $A = s^2$

Rectangle $A = lw$

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

Parallelogram $A = bh$

Circle $A = \pi r^2$

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

CIRCUMFERENCE

Circle $C = \pi d$ or $C = 2\pi r$

VOLUME

Rectangular Prism $V = lwh$ or $V = Bh$ Right Cylinder $V = \pi r^2 h$ or $V = Bh$

SURFACE AREA

Rectangular Prism $S = 2lw + 2lh + 2wh$ or $S = 2B + Ph$

Cylinder $S = 2\pi rh + 2\pi r^2$

LINEAR EQUATIONS

Slope-intercept $y = mx + b$

Direct Variation $y = kx$ or $k = \frac{y}{x}$
(k : constant of proportionality)

PYTHAGOREAN THEOREM

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



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