

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 = 1000 millimeters
1 meter = 100 centimeters
1 kilometer = 1000 meters
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
1 liter = 1000 milliliters

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 $V = Bh$ Cylinder $V = \pi r^2 h$ or $V = Bh$

SURFACE AREA

Rectangular Prism $S = 2lw + 2lh + 2wh$ or $S = 2(lw + lh + wh)$

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

PROPORTIONAL RELATIONSHIPS

Slope-intercept $y = mx + b$ $y = kx$ or $k = \frac{y}{x}$ (k : constant of proportionality)

PYTHAGOREAN THEOREM

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



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