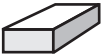





Grades 6–8 FCAT Mathematics Reference Sheet

Area	
Triangle	$A = \frac{1}{2}bh$
Rectangle	$A = bh$
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$
Parallelogram	$A = bh$
Circle	$A = \pi r^2$

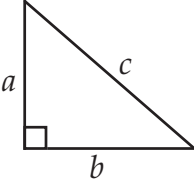
KEY	
b = base	d = diameter
h = height	r = radius
w = width	A = area
ℓ = slant height	B = area of base
S.A. = surface area	C = circumference
	V = volume
L.A. = lateral area	P = perimeter of base
Use 3.14 or $\frac{22}{7}$ for π .	

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

	Volume/Capacity	Total Surface Area
	Rectangular Prism $V = bwh$	S.A. = $LA + 2B$ or $2bh + 2bw + 2hw$
	Right Circular Cylinder $V = \pi r^2h$	S.A. = $2\pi rh + 2B$ or $2\pi rh + 2\pi r^2$
	Right Square Pyramid $V = \frac{1}{3}Bh$	S.A. = $B + \frac{1}{2}P\ell$
	Right Circular Cone $V = \frac{1}{3}\pi r^2h$	

In a polygon, the sum of the measures of the interior angles is equal to $180(n - 2)$, where n represents the number of sides.

Grades 6–8 FCAT Mathematics Reference Sheet

<p style="text-align: center;">Pythagorean theorem:</p> <div style="display: flex; align-items: center; justify-content: center;">  $a^2 + b^2 = c^2$ </div>	<p style="text-align: center;">Simple interest formula:</p> $I = prt$ <p style="text-align: center;">Where p = principal, r = rate, t = time.</p>
<p style="text-align: center;">Slope-intercept form of an equation of a line:</p> $y = mx + b$ <p style="text-align: center;">where m = slope and b = y-intercept.</p>	<p style="text-align: center;">Distance, rate, time formula:</p> $d = rt$ <p style="text-align: center;">where d = distance, r = rate, t = time.</p>

Conversions within a System of Measure

<p>1 yard = 3 feet 1 mile = 1760 yards = 5280 feet 1 acre = 43,560 square feet</p> <p>1 cup = 8 fluid ounces 1 pint = 2 cups 1 quart = 2 pints 1 gallon = 4 quarts 1 pound = 16 ounces 1 ton = 2000 pounds</p>	<p>1 meter = 100 centimeters = 1000 millimeters 1 kilometer = 1000 meters</p> <p>1 liter = 1000 milliliters = 1000 cubic centimeters 1 gram = 1000 milligrams 1 kilogram = 1000 grams</p> <p>1 minute = 60 seconds 1 hour = 60 minutes 1 year = 52 weeks = 365 days</p>
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Conversions between Systems of Measure

When converting from Customary to Metric, use these approximations.

<p>1 inch = 2.54 centimeters 1 foot = 0.305 meters 1 mile = 1.61 kilometers</p>	<p>1 cup = 0.24 liters 1 gallon = 3.785 liters 1 ounce = 28.35 grams 1 pound = 0.454 kilograms</p>
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When converting from Metric to Customary, use these approximations.

<p>1 centimeter = 0.39 inches 1 meter = 3.28 feet 1 kilometer = 0.62 miles</p>	<p>1 liter = 4.23 cups 1 liter = 0.26 gallons 1 gram = 0.035 ounces 1 kilogram = 2.21 pounds</p>
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Temperature Conversions between Celsius and Fahrenheit

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \div 1.8$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 1.8) + 32$$