Grades 6–8 Mathematics Reference Page

Use the information below to answer questions in this test.

Formulas

Figure	Area
Triangle	$A = \frac{1}{2}bh$
Parallelogram	$A = bh$
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$
Rectangle	$A = lw$
Square	$A = s^2$
Circle	$A = \pi r^2$
Also for circles: $C = \pi d$ $C = 2\pi r$	
$\pi \approx 3.14$	

Figure	Surface Area	Volume
Rectangular Prism	S.A. $= 2(wh + lh + lw)$	$V = lwh$ $V = Bh$
Cylinder	S.A. $= 2\pi rh + 2\pi r^2$	$V = \pi r^2 h$
Square Pyramid	NA	$V = \frac{1}{3}Bh$
Triangular Pyramid	NA	$V = \frac{1}{3}Bh$
Cone	NA	$V = \frac{1}{3}Bh$ $V = \frac{1}{3}\pi r^2 h$
Sphere	NA	$V = \frac{4}{3}\pi r^3$

Interest = principal × rate × time

Distance = rate × time

Slope formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Sum of Measures of Interior Angles of a Convex Polygon:
$$S = 180(n - 2)$$

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

Forms of Equations

Standard form of an equation of a line: $Ax + By = C$

Slope-intercept form of an equation of a line: $y = mx + b$

Point-slope form of an equation of a line: $y - y_1 = m(x - x_1)$

Conversions

Standard Units	Metric Units
Length	
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)
1 yard (yd) = 3 feet (ft)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
Volume	
1 cup (c) = 8 fluid ounces (fl oz)	1 liter (l) = 1,000 milliliters (ml)
1 pint (pt) = 2 cups (c)	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 quart (qt) = 2 pints (pt)	
1 gallon (gal.) = 4 quarts (qt)	
Weight/Mass	
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)
1 ton = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)