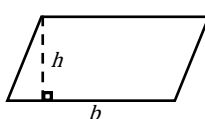
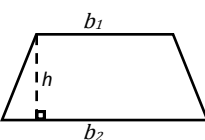
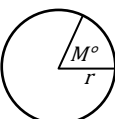
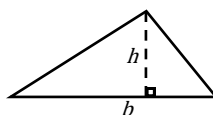
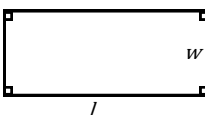
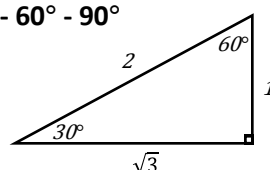
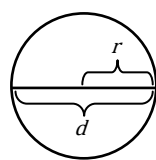
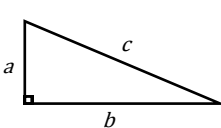
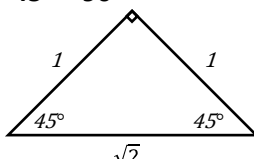
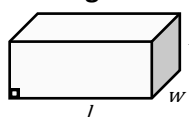
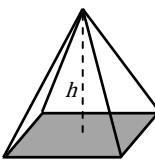
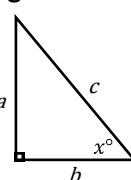
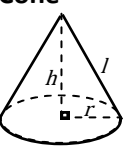
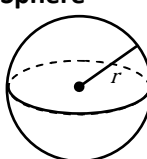


Geometry EOC Released Items – Formula Sheet

End of Course Mathematics Reference Sheet

Parallelogram  $P = \text{sum of all sides}$ $A = bh$	Trapezoid  $A = \frac{h(b_1 + b_2)}{2}$	Arc and Sector  $\text{Arc Length} = \left(\frac{M}{360}\right) \cdot 2\pi r$ $\text{Sector Area} = \left(\frac{M}{360}\right) \cdot \pi r^2$
Triangle  $P = \text{sum of all sides}$ $A = \frac{bh}{2}$	Rectangle  $P = 2l + 2w$ $A = lw$	30° - 60° - 90° 
Circles  $C = 2\pi r$ $C = \pi d$ $A = \pi r^2$ $\pi \approx 3.14$	Pythagorean Theorem  $a^2 + b^2 = c^2$	45° - 45° - 90° 
Rectangular Solid  $\text{Volume} = lwh$ $\text{Surface Area} = 2lw + 2lh + 2wh$	Pyramid  $B = \text{area of base (shaded)}$ $\text{Volume} = \frac{Bh}{3}$	Trigonometric Ratios  $\sin x^\circ = \frac{a}{c}$ $\cos x^\circ = \frac{b}{c}$ $\tan x^\circ = \frac{a}{b}$
Cylinder  $\text{Volume} = \pi r^2 h$ $\text{Surface Area} = 2\pi rh + 2\pi r^2$	Cone  $l = \text{slant height}$ $\text{Volume} = \frac{\pi r^2 h}{3}$ $\text{Surface Area} = \pi rl + \pi r^2$	Sphere  $\text{Volume} = \frac{4\pi r^3}{3}$ $\text{Surface Area} = 4\pi r^2$
Miscellaneous Formulas	Area of an equilateral triangle	$A = \frac{s^2\sqrt{3}}{4}$ s = length of a side
	Distance	rate · time
	Interest	principal · rate · time in years
	Sum of the angles of a polygon having n sides	$(n - 2)180^\circ$
	Distance between points on a coordinate plane	$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$
	Midpoint	$\left(\frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2}\right)$
	Slope of a nonvertical line (where $x^2 \neq x^1$)	$m = \left(\frac{y_2 - y_1}{x_2 - x_1}\right)$
	Slope Intercept (where m = slope, b = intercept)	$y = mx + b$
	Last term of an arithmetic series	$a_n = a + (n - 1)d$
	Last term of a geometric series (where $n \geq 1$)	$a_n = ar^{n-1}$
	Quadratic Formula	$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
	Area of a square	$A = s^2$
	Volume of a cube	$V = s^3$
Area of a regular polygon	$A = \frac{1}{2}ap$ a = apothem, p = perimeter	

Lateral Area, Surface Area & Volume

P = perimeter of base

B = area of base

l = slant height

Rectangle: $A = bh$

Circle: $A = \pi r^2$

Triangle: $A = \frac{bh}{2}$

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

Lateral Area of a Prism: $LA = PH$

Surface Area of a Prism: $SA = PH + 2B$

Lateral Area of a Cylinder: $LA = 2\pi rH$

Surface Area of a Cylinder: $SA = 2\pi rH + 2\pi r^2$

Lateral Area of a Pyramid: $LA = \frac{Pl}{2}$

Surface Area of a Pyramid: $SA = \frac{Pl}{2} + B$

Volume of a Prism: $V = BH$

Volume of a Cylinder: $V = \pi r^2 H$

Volume of a Cone: $V = \frac{\pi r^2 H}{3}$

Volume of a Pyramid: $V = \frac{BH}{3}$

Volume of a Sphere: $V = \frac{4\pi r^3}{3}$

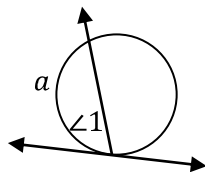
Lateral Area of a Cone: $LA = \pi r l$

Surface Area of a Cone: $SA = \pi r l + \pi r^2$

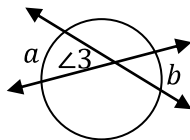
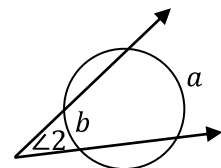
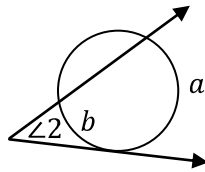
Surface Area of a Sphere: $SA = 4\pi r^2$

Circles

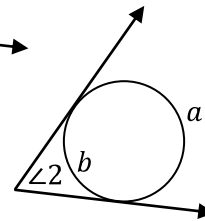
Secant & Tangent Angles



$$\angle 1 = \frac{1}{2}a$$

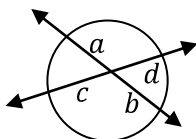


$$\angle 3 = \frac{1}{2}(a + b)$$

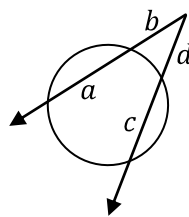


$$\angle 2 = \frac{1}{2}(a - b)$$

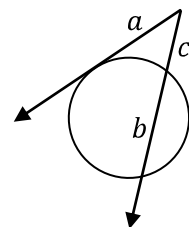
Secant & Tangent Segment Lengths



$$ab = cd$$



$$b(a + b) = d(c + d)$$



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