Formulas for the Final Exam

Sum of measures of the interior angles of any convex polygon: $(n-2)180^\circ$

Measure of the interior angle of a *regular* polygon: $\frac{(n-2)180^\circ}{n}$

Euler's Formula for convex polyhedra: Faces + Vertices = Edges + 2

Know SOHCAHTOA.

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

Slope-Intercept Form: $y = mx + b$

Know Metric system and English system conversions.

Circumference of a Circle: $C = 2\pi r$

Arc Length: $\frac{\theta \pi r}{180^\circ}$

Pick's Theorem: Area $= \frac{1}{2}B + I - 1$, where B represents the number of boundary points and I represents the number of interior points on a simple lattice figure.

Area of a Rectangle: $A = lw$

Area of a Parallelogram: $A = bh$

Area of a Triangle: $A = \frac{1}{2}bh$

Area of a Trapezoid: $A = \frac{1}{2}(b_1 + b_2)h$

Area of a Circle: $A = \pi r^2$

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

Distance Formula: $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Surface Area Formulas

Solid	**Surface Area**
Cube	$6s^2$
Rectangular Prism	$2LW + 2LH + 2WH$
Right Triangular Prism	(Base Perimeter)$h + 2$(Base Area)
Pyramid	Base Area + Lateral Area
(Circular) Cylinder	$2\pi r^2 + 2\pi rh$
(Circular) Cone	$\pi r^2 + \pi rl$, where l is the slant height
Sphere	$4\pi r^2$

Volume Formulas

Solid	**Volume**
Cube	s^3
Rectangular Prism	LWH
Right Triangular Prism	(Base Area)h
Pyramid	$\frac{1}{3}$(Base Area)h
(Circular) Cylinder	$\pi r^2 h$
(Circular) Cone	$\frac{1}{3}\pi r^2 h$
Sphere	$\frac{4}{3}\pi r^3$