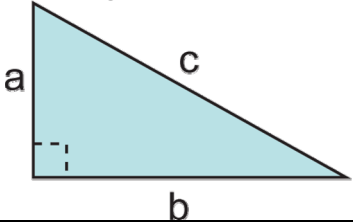
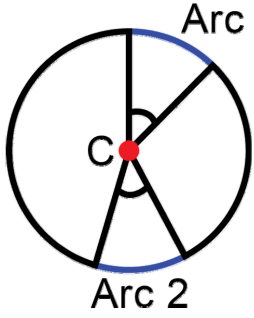
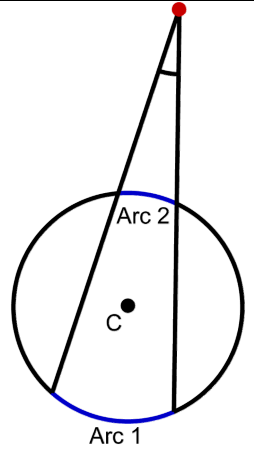
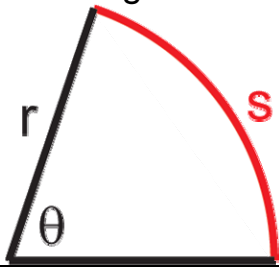
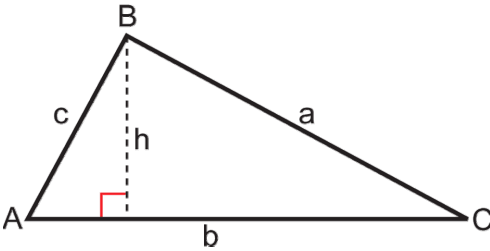
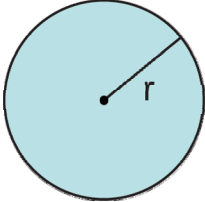

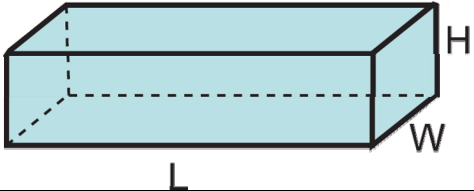
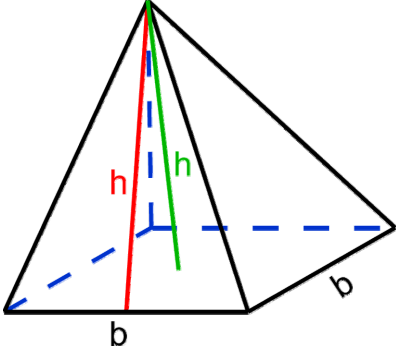
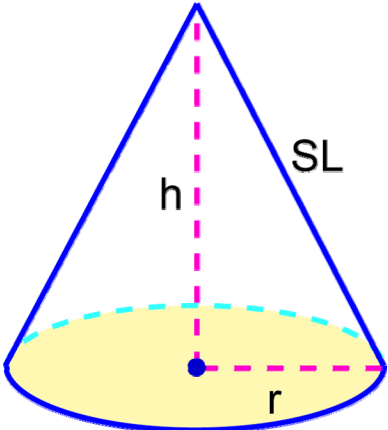
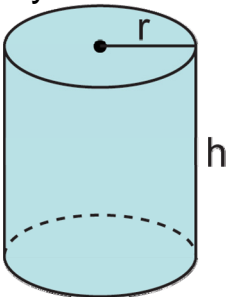


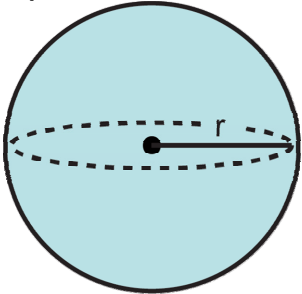
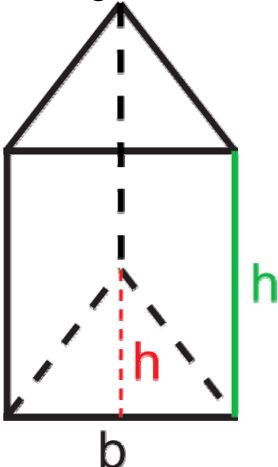
This page should be memorized and cannot be used on the proctored final.

<p>Distance Formula: Find the distance between two points (x_1, y_1) and (x_2, y_2).</p>	$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$
<p>Sum of Interior Angles</p>	$S_i = (n - 2)(180)$, where n is the number of sides of the polygon.
<p>Pythagorean Theorem</p> 	$a^2 + b^2 = c^2$
	$\text{Angle} = \frac{1}{2}(\text{arc } 1 + \text{arc } 2)$
	$\text{Angle} = \frac{1}{2}(\text{arc } 1 - \text{arc } 2)$
<p>Arc length:</p> 	$S = r\theta$, where θ is in radians

<p>Triangle:</p> 	<p>Area</p> $A = \frac{1}{2}(b)(h)$ $A = \frac{1}{2} (b)(c)(\sin(A))$ $A = \sqrt{s(s-a)(s-b)(s-c)} \text{ where } s = \frac{a+b+c}{2}$ <p>Law of Sines:</p> $\frac{\sin(A)}{a} = \frac{\sin(B)}{b} = \frac{\sin(C)}{c}$ <p>Law of Cosines:</p> $a^2 = b^2 + c^2 - (2bc)\cos(A)$
<p>Circle:</p> 	<p>Area:</p> $A = \pi r^2$ <p>Circumference:</p> $C = 2\pi r$ <p>Given an equation of a circle, be able to write in standard form:</p> $(x - h)^2 + (y - k)^2 = r^2$ <p>Vertex: (h, k) Radius: r</p>
<p>Rectangle/Square:</p> 	<p>Area:</p> $A = (L)(W)$ <p>Perimeter:</p> $P = 2L + 2W$

<p>Box/ Cube</p> 	<p>Surface Area: $TSA = 2(L)(W) + 2(L)(H) + 2(W)(H)$</p> <p>Volume: $V = (L)(W)(H)$</p>
<p>Square Pyramid:</p> 	<p>Surface Area: $TSA = b^2 + 2(b)(h)$, h is the height of one of the triangles.</p> <p>Volume: $V = \frac{1}{3}b^2h$, h is the height of the pyramid.</p> <p>Note: $h = \sqrt{h^2 - \frac{b^2}{4}}$</p>
<p>Cone:</p> 	<p>Surface Area: $TSA = \pi r^2 + \pi r(SL)$</p> <p>Volume : $V = \frac{1}{3}\pi r^2 h$</p>
<p>Cylinder:</p> 	<p>Surface Area: $TSA = 2\pi r^2 + 2\pi rh$</p> <p>Volume : $V = \pi r^2 h$</p>

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<p>Sphere:</p>  A light blue sphere with a black outline. A horizontal dashed line represents the equator. A solid line from the center to the right edge of the equator is labeled 'r'.	<p>Surface Area :</p> $TSA = 4\pi r^2$ <p>Volume :</p> $V = \frac{4}{3}\pi r^3$
<p>Triangular Prism:</p>  A 3D diagram of a triangular prism. The base is a triangle with a dashed vertical line from its top vertex to its base, labeled 'h' in red. The base of this triangle is labeled 'b'. The prism's height is a vertical green line on the right side, labeled 'h' in green.	<p>Volume :</p> $V = \frac{1}{2} (\text{base of triangle})(\text{height of triangle})(\text{height of prism})$ $V = \frac{1}{2} (b)(h)(h)$

You should also know the following for the final, but is not limited to:
State the hypothesis and conclusion of a statement.

Given two points A and B, find a point that divides a line segment a certain distance between A to B.

Proofs about triangles.

Proof by contradiction.

Use parallel lines cut by a transversal line to determine an angle.

Properties of isosceles and equilateral triangles.

Know when two triangles are congruent.

Triangle Inequality Theorem

Know how to use special triangles: $30^\circ - 60^\circ - 90^\circ$ and $45^\circ - 45^\circ - 90^\circ$

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Bearing problems: City A, B, C and Coast Guard

Know properties on: Rhombus, Isosceles Trapezoids, Parallelograms, rectangles

Given points, determine which of the above quadrilaterals they represent.

Understand the constructions from the 6.1 homework.

Understand reflection, rotation, translation and dilation.

Find the perimeter of a regular polygon.

Given points, find the perimeter of the defined points.

Know how to graph: Circle, Ellipse, Hyperbola, and Parabola

If you can do all the chapter test problems without using notes, you will be prepared for the final.