

GEOMETRY

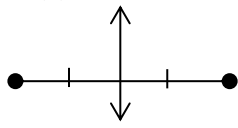
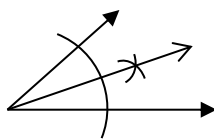
UNIT 5: PROPERTIES AND ATTRIBUTES OF TRIANGLES


****SHOW ALL WORK****

PLEASE BRING COLORED PENCILS TO CLASS. A COMPASS IS REQUIRED FOR THIS UNIT.

LESSON	TOPIC	CCLS	Assignment
DAY 1	EXPLORE BRIDGE TO UNIT 5 PERPENDICULAR AND ANGLE BISECTORS (5-1)	G.CO.13 G.CO.10	<ul style="list-style-type: none"> p. 304-305: #12-17, 19-22
DAY 2	ANGLE BISECTORS OF TRIANGLES AND INCENTERS (5-2)	G.CO.9 G.CO.10	<ul style="list-style-type: none"> p. 311-312: #9,10,11,20,28,29,31 Proof A Construction Project – Incenter
DAY 3	PERPENDICULAR BISECTORS OF TRIANGLES AND CIRCUMCENTERS (5-2)	G.CO.10	<ul style="list-style-type: none"> p. 311-312: #12-15, 22-27, 30, 32 Proof B Construction Project - Circumcenter
DAY 4	QUIZ 1 ALTITUDES OF TRIANGLES & ORTHOCENTERS (5-3)	G.CO.10	<ul style="list-style-type: none"> WORKSHEET UNIT 5 – DAY 4 PROOF C Construction Project - Orthocenter
DAY 5	MEDIANS & CENTROIDS OF TRIANGLES (5-3) CENTROID FORMULA	G.CO.10	<ul style="list-style-type: none"> p. 318: #12-15, 16, 21-26,29-32, 37 (refer to project),43 Proof D Construction Project - Centroid
DAY 6	QUIZ 2 THE TRIANGLE MIDSEGMENT THEOREM (5-4)	G.CO.10	<ul style="list-style-type: none"> p. 324-325 : #11-16, 18-20, 24,26 Proofs E & F
DAY 7	INEQUALITIES IN ONE TRIANGLE & EXTERIOR ANGLE INEQUALITY THEOREM(5-5)	G.CO.10	<p>p. 336-337 : #18,19,20,21,26,32,33,34,54</p> <p>Graph Paper Required for 54</p>
Day 8	COMPLETE CONSTRUCTION PROJECT REVIEW FOR TEST		<ul style="list-style-type: none"> FINISH REVIEW PACKET FINISH CONSTRUCTION PROJECT
Day 9	TEST		<ul style="list-style-type: none"> Cumulative Review #5 due _____ Bridge to Unit 6 due next class

GEOMETRY CLASS LESSON SUMMARIES FOR UNIT 5 **NAME:** _____

DAY	MAIN POINTS / FORMULAS TO REMEMBER	QUESTIONS AFTER DOING HOMEWORK
5-1	<p>Draw in the resulting equidistant relationship for a(n)</p>  <p>Perpendicular Bisector</p>  <p>Angle Bisector</p> <p>To write the equation of a perpendicular bisector of a segment:</p> <ol style="list-style-type: none"> 1. Calculate the _____ of the segment 2. Determine the slope of the bisector line using the _____ of the segment's slope 3. Calculate the _____ of the segment $\rightarrow (x_1, y_1)$ 4. Write the equation of the perpendicular bisector line slope-intercept form: _____ or point-slope form: _____ through the midpoint (x_1, y_1) 	

<p>5-2</p>	<p>1) Complete Comparing Points of Concurrency for Incenter: Construct Incenter P ; fill in blanks ; construct inscribed circle</p> <p>2) In a proof, an angle bisector → _____</p>	
<p>5-3</p>	<p>1) Complete Comparing Points of Concurrency for Circumcenter: Construct Circumcenter P ; fill in blanks ; construct circumscribed circle on the acute triangle</p> <p>2) In a proof, a perpendicular bisector → _____ or → _____</p>	
<p>5-4</p>	<p>1) Complete Comparing Points of Concurrency for Orthocenter Construct Orthocenter P and fill in blanks</p> <p>2) In a proof, an altitude → _____</p>	
<p>5-5</p>	<p>1) Complete Comparing Points of Concurrency for Centroid Construct Centroid P and fill in blanks</p> <p>2) In a proof, a median → _____ → _____</p> <p>3) In the coordinate plane, the centroid formula for a triangle with vertices $(x_1, y_1), (x_2, y_2), (x_3, y_3)$ is: Centroid = _____</p>	
<p>5-6</p>	<ul style="list-style-type: none"> • Definition: A midsegment connects the _____ of two sides of a triangle. • Properties: The midsegment is _____ to the 3rd side and _____ the length of the 3rd side. • To prove a segment is the midsegment of a triangle, <ul style="list-style-type: none"> ○ By definition, show segment endpoints are _____ of two sides; coordinate plane tool: _____ ○ By properties, show segment is _____ to and _____ the length of the 3rd side; coordinate plane tools: _____ and _____ • A _____ is made of the three midsegments of a Δ. 	
<p>5-7</p>	<p>1. The Triangle Inequality Theorem says the _____ must be $>$ the 3rd side alone. This must be true for all _____ cases. The range of the length of the third side x of a triangle is $\text{difference} < x < \text{sum}$ of the other two sides. Example: If the other two sides have lengths a and b, the range for x is _____.</p> <p>2. Angle-Side Relationships: For any triangle, the largest \sphericalangle is opposite the _____, and the shortest side is opposite the _____. To compare sides of triangles in the coordinate plane, calculate their lengths using the _____ formula*: _____. Then compare _____ based on side lengths. (*Or <i>Pythagorean Theorem</i>)</p> <p>3. Exterior Angle Inequality: The measure of an exterior angle of a triangle is _____ the measure of each of its remote interior angles. Write the inequalities for $\sphericalangle 4$:</p> 	
<p>5-8 Review</p>		