

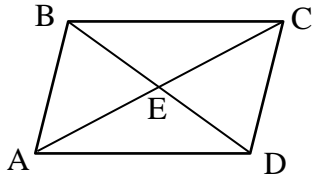
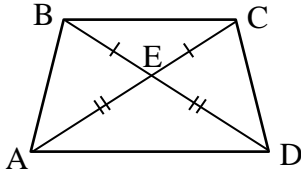
GEOMETRY
CHAPTER 6: QUADRILATERALS

SHOW ALL WORK
USE COLORED PENCILS AND GRAPH PAPER WHERE APPROPRIATE.

LESSON	TOPIC	TEXT	CCLS	ASSIGNMENT
Day 1	Properties of Parallelograms	6-2	G.CO.11	P. 395-397 : #9,11,21,22,32-40,44
Day 2	Conditions for Parallelograms	6-3	G.GPE.4 G.GEP.7	P. 402-404: #17-23 #26 WRITE OUT PROOF
MIDTERM REVIEW – SEE SEPARATE OUTLINE CR#5 is due on <u>1/6/17</u>				
Day 3	Properties of Special Parallelograms	6-4	G.CO.11	P. 412-413 #14-15,19, 20, 23, 25-31 ODDS #35 – WRITE OUT PROOF #41, 42– USE PYTHAG
Day 4	Conditions for Special Parallelograms	6-5	G.GPE.4 G.GPE.7	P. 422-423: #7,8,11-16,24-27, #30 – WRITE OUT PROOF
Day 5	Quiz 1 (Lessons 6-1 through 6-4) Properties of Trapezoids	6-6	G.CO.11	P. 432-433: #27,30,32,34,35
Day 6	Quadrilateral Proofs	6-1 THRU 6-6	G.CO.6,11 G.SRT.5 G.GPE.7,4	WORKSHEET 6-6
Day 7	Quadrilateral Proofs in the Coordinate Plane: Parallelograms and Trapezoids		G.CO.6 G.CO.11 G.SRT.5 G.GPE.7 G.GPE.4	WORKSHEET 6-7
Day 8	Quadrilateral Proofs in the Coordinate Plane: Special Parallelograms Quiz 2 (Lessons 6-1 through 6-7)		G.CO.6 G.CO.11 G.SRT.5 G.GPE.7 G.GPE.4	WORKSHEET 6-8
Day 9	Rigid Motions of Quadrilaterals (Planar & Coordinate Plane)		G.CO.6,11 G.SRT.5 G.GPE.7,4	WORKSHEET 6-9
Day 10	Review			FINISH REVIEW PACKET AND LESSON SUMMARIES
T	TEST <i>Note: this will be after Regents Week so please keep practicing the concepts!</i>			CUMULATIVE REVIEW #6 DUE _____ BRIDGE TO UNIT 7 DUE NEXT CLASS

GEOMETRY LESSON SUMMARIES FOR UNIT 6: QUADRILATERALS

DAY	MAIN POINTS / FORMULAS TO REMEMBER	HMWK QUESTIONS																																																
6-1	<p>Parallelogram Properties Draw it!</p> <p>1. → _____ (Defn) </p> <p>2. → _____ </p> <p>3. → _____ </p> <p>4. → _____ </p> <p>5. → _____ </p>																																																	
6-2	Refer to “Ways to Prove Quadrilaterals” and complete Parallelograms																																																	
6-3	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="width: 15%;">Quadrilateral that BEST matches the information</th> <th style="width: 15%;">Parallelogram with one right angle</th> <th style="width: 15%;">Parallelogram with a diagonal that bisects a pair of opposite angles</th> <th style="width: 15%;">Parallelogram with congruent diagonals</th> <th style="width: 15%;">Parallelogram with one pair of congruent consecutive sides</th> <th style="width: 15%;">Parallelogram with perpendicular diagonals</th> </tr> </thead> <tbody> <tr> <td>1. _____</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>2. _____</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4. _____</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>5. _____</td> <td></td> <td></td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>6. _____</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> </tr> <tr> <td>7. _____</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> </tr> </tbody> </table>	Quadrilateral that BEST matches the information	Parallelogram with one right angle	Parallelogram with a diagonal that bisects a pair of opposite angles	Parallelogram with congruent diagonals	Parallelogram with one pair of congruent consecutive sides	Parallelogram with perpendicular diagonals	1. _____	X					2. _____		X				3. _____	X	X				4. _____			X			5. _____			X	X		6. _____				X		7. _____					X	
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6-4	Refer to “Ways to Prove Quadrilaterals”																																																	
6-5	<ul style="list-style-type: none"> By definition, a trapezoid is a quadrilateral with _____ sides (use this to prove a trapezoid). Draw the attributes (2) of a trapezoid: <div style="text-align: center; margin: 10px 0;"> </div> <ul style="list-style-type: none"> If the _____ of a trapezoid are congruent, then the trapezoid is isosceles. First prove a trapezoid by definition then use an attribute to prove an isosceles trapezoid. Draw the attributes (3) of an isosceles trapezoid: <div style="text-align: center; margin: 10px 0;"> </div> <p>Midsegment/Median of a Trapezoid is _____ to each base, and the length is $\frac{1}{2}$ the _____ of the lengths of the bases. Draw an example:</p> <div style="text-align: right; margin-top: 10px;"> </div>																																																	

<p>6-6</p>	<ul style="list-style-type: none"> Refer to “Ways to Prove Quadrilaterals” To get sides or angles of triangles congruent when they are within quadrilaterals, use properties of the quadrilateral.  <p>Write a reason(s) each of the following are congruent in $\triangle ABE$ & $\triangle CDE$ from $\square ABCD$</p> <p>$\overline{AB} \cong \overline{CD}$: _____</p> <p>$\overline{AE} \cong \overline{CE}$: _____</p> <p>$\angle EAB \cong \angle ECD$: _____</p> <p>_____</p>	<ul style="list-style-type: none"> In order to prove a quadrilateral, you may need to use congruent triangles and then CPCTC.  <p>Given the drawing of trapezoid ABCD,</p> <p>- $\triangle ABE$ & \triangle _____ by _____</p> <p>- $\overline{AB} \cong \overline{CD}$ by _____</p> <p>- Therefore, trapezoid ABCD is _____ since it has congruent legs.</p>	
<p>6-7 6-8</p>	<ul style="list-style-type: none"> Refer to “Ways to Prove Quadrilaterals” Locating vertices in the coordinate plane: <ul style="list-style-type: none"> To locate a missing vertex of a parallelogram or a trapezoid in the coordinate plane, use the _____ of the opposite side. Be sure you don’t _____ the slope for a parallelogram. Recall: perpendicular slopes must be _____. 	<p>6-7</p>	<p>6-8</p>
<p>6-9</p>	<ul style="list-style-type: none"> Rigid Motions Preserve: <ol style="list-style-type: none"> _____ _____ _____ _____ “Transformational approach” means use properties of _____. <ul style="list-style-type: none"> All rigid motions except a single line reflection also preserve _____ 		
<p>6-10</p>	<p>Review Notes:</p>		

WAYS TO PROVE QUADRILATERALS

Coordinate Geometry Tools:		
<p>Slope</p> $m = \frac{\Delta y}{\Delta x}$ <p>To show = \rightarrow \parallel $m_1 \cdot m_2 = -1 \rightarrow \perp$; Opp reciprocals $\rightarrow \perp$</p>	<p>Distance</p> $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$ <p>To show = $\rightarrow \cong$</p>	<p>Midpoint</p> $\text{Midpoint} = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$ <p>To show same midpoint \rightarrow diagonals bisect each other</p>
Ways to prove a quadrilateral is a parallelogram:		
Theorem/Condition	Diagram	Formula
Show 2 pairs of opposite sides <hr style="width: 100%;"/>		
Show 2 pairs of opposite sides <hr style="width: 100%;"/>		
Show 1 pair of opposite sides <hr style="width: 100%;"/>		
Show 2 pairs of opposite angles <hr style="width: 100%;"/>		
Show diagonals <hr style="width: 100%;"/>		
Show an angle is supplementary to <hr style="width: 100%;"/>		
Ways to prove a quadrilateral is a rectangle:		
Show it's a parallelogram w/ <hr style="width: 100%;"/>		
Show it's a parallelogram w/ <hr style="width: 100%;"/>		
Ways to prove a quadrilateral is a rhombus:		
Show it has 4 <hr style="width: 100%;"/>		
Show it's a parallelogram w/ <hr style="width: 100%;"/>		
Show it's a parallelogram w/ <hr style="width: 100%;"/> diagonals		
Ways to prove a quadrilateral is a square:		
Show it is a parallelogram that is both <hr style="width: 100%;"/>		

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