

CP Geometry

Feb 26- Mar 1, 2024
Chapter 7 Polygons Continue

This week's objectives from Chapter 7.

7.2 & 7.3

Essential Question: What are the properties of parallelograms?	CC State Standards	CC Mathematical Practice Focus
Lesson Objective(s): Students will use properties to find side lengths and angles of parallelograms. Students will use parallelograms in the coordinate plane.	HSG-CO.C.11 HSG-SRT.B.5 HSG-MG.A.1 HSG-MG.A.3	MP2, MP3, MP6, MP8

7.4

Essential Question: What are the properties of the diagonals of rectangles, rhombuses, and squares?		
Lesson Objective(s): Students will use properties of special parallelograms. Students will use properties of diagonals of special parallelograms. Students will use coordinate geometry to identify special types of parallelograms.	CC State Standards	CC Mathematical Practice Focus
	HSG-CO.C.11	MP2, MP3, MP6,

7.5

Lesson Objective(s): Students will use properties of trapezoids. Students will use the Trapezoid Midsegment Theorem to find distances. Students will use properties of kites. Students will identify quadrilaterals.
Previous Learning: Students have learned the properties of parallelograms, rectangles, rhombuses, and squares in previous lessons. Students should also already be familiar with trapezoids and kites.
New Vocabulary: trapezoid, bases, base angles, legs, isosceles trapezoid, midsegment of a trapezoid, kite

Week Overview: Feb 26- Mar 1, 2024

- Monday - Practice w/ Special Parallelograms Ch 7.4 Section
by doing online assignment BIM and finish for homework
- Tuesday - Lesson on 7.5 section OTHER special QUADS
KITE
TRAPEZOID and its isosceles version
- Wednesday - Practice 7.5 with BIM and worksheet “Puzzletime 7.5”
- Thursday - Review for TEST on Chapter 7
- Friday - TEST on Chapter 7 (2 out for field trip)

MONDAY

Warmup Watch:

Link to youtube video that is an animation of these properties: www.youtube.com/watch?v=1xH9ry_2l88

Check and Close Homework Forms / Check 7.4 Practice A

Work on 7.4 BIM online

TUESDAY

Warmup with PG 9 in packet - 7.4 “Warmup” # 1-6 as links to parallel lines

- Use as link to Trapezoid only have one set so opposite angles are NOT congruent and only 2 sets of supplementary consecutive angles.
- Use isosceles trapezoid as a symmetrical vertical fold down through base sides

Student Journal

- notes on pgs. 215 - 219
- practice with pgs 219 problems

Homework pg. 8 in packet the Puzzletime

Announce tutoring 9 th period today but not after school

Wednesday - practice day

Warmup - Packet pg 11 on 7.5 Practice A # 5-7

Next : Discuss # 8 the proof together

Review last nights homework questions

Assign online BIM 7.5 Practice - only the darkened textbook problems

1	2	3*	4	5*	6	7*	8	9*	10
11	12	13*	14	15*	16	17*	18	19	20
21*	22	23*	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

THURSDAY

Play this kahoot to help with review

- https://kahoot.it/challenge/03672315?challenge-id=6a35df94-15d6-42bb-9a0b-07404aeef3ff_1708439339263

Review any problems with past homework or assignments

Complete the table of summary notes - chart on pg 13 of packet

Use pg 7 of packet on 7.3 Enrichment of proving parallelogram # 1-8

Friday - TEST day (2 out for field trip will need to do Mon.)

Chapter 7 - all sections so use packet to review sample problems

Day of TEST - collect notes and packet for a grade

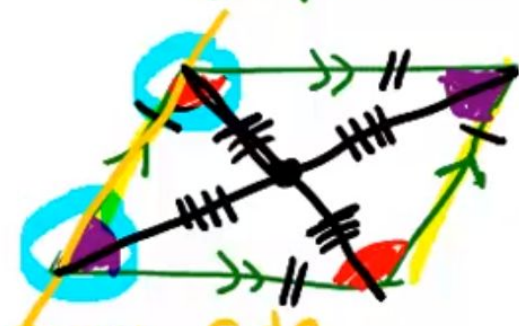
TEST - no notes used on it but may have a calculator

PARALLELOGRAM --- defined by 2 pairs of parallel sides

EdPuzzle notes:

ck-12 Parallelograms: Lesson (Geometry Concepts)

→ a quadrilateral with 2 pairs of parallel sides




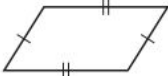

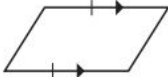

Same side interior angles

- ① opposite sides are \cong
- ② opposite angles are \cong
- ③ consecutive angles are supplementary
- ④ diagonals bisect each other

copy link

YouTube

Ways to Prove a Quadrilateral Is a Parallelogram

<p>1. Show that both pairs of opposite sides are parallel. (<i>Definition</i>)</p>	
<p>2. Show that both pairs of opposite sides are congruent. (<i>Parallelogram Opposite Sides Converse</i>)</p>	
<p>3. Show that both pairs of opposite angles are congruent. (<i>Parallelogram Opposite Angles Converse</i>)</p>	
<p>4. Show that one pair of opposite sides are congruent and parallel. (<i>Opposite Sides Parallel and Congruent Theorem</i>)</p>	
<p>5. Show that the diagonals bisect each other. (<i>Parallelogram Diagonals Converse</i>)</p>	

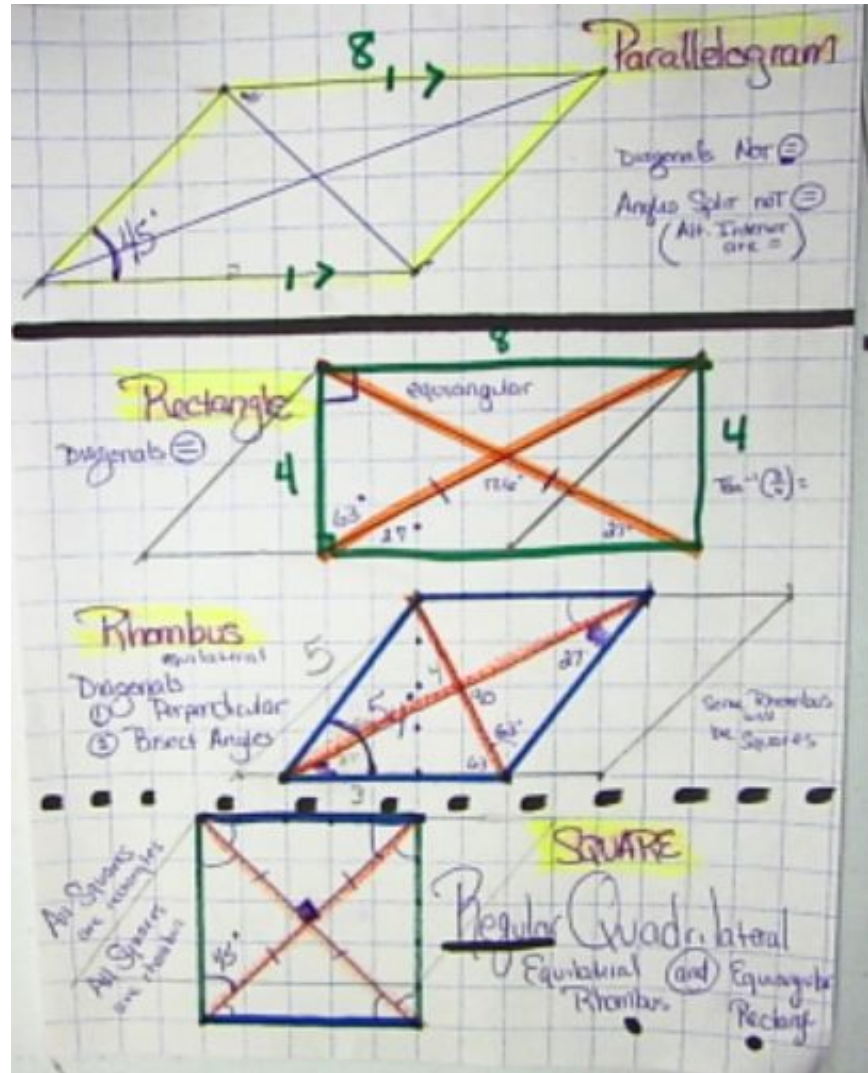
NOTES: focus on DIAGONALS relationships

Finishing Drawing Notes for use on TEST and a grade.

Due at time of formal unit test
TBA

(10) points total

- Label shape and measures for sides, at least 2 angles at diagonal and polygon vertex intersection. (5)
- Have some notes on diagonals characteristics as properties of the shape. (3)
- Color (2)



After 7.4 lesson - answer these questions (pg. 212 top)

Work with your group to determine whether the statement is sometimes, always, or never true.

1. Squares are rhombuses. *Always*

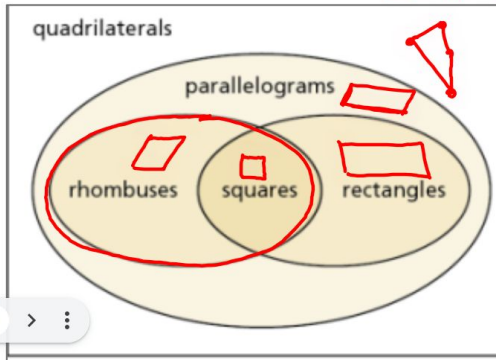
3. Parallelograms are squares. *Sometimes*

5. Rectangles are squares. *Sometimes*

2. Rectangles are rhombuses. *Sometimes (if square)*

4. Squares are parallelograms. *Always*

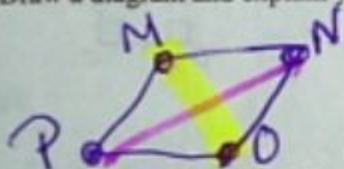
6. Trapezoids are parallelograms. *Never*



7.4 Notetaking with Vocabulary (continued)

Extra Practice

1. For any rhombus $MNOP$, decide whether the statement $\overline{MO} \cong \overline{NP}$ is *always* or *sometimes* true. Draw a diagram and explain your reasoning.



length
Diagonals
 Sometimes as a SQUARE

2. For any rectangle $PQRS$, decide whether the statement $\angle PQS \cong \angle RSQ$ is *always* or *sometimes* true. Draw a diagram and explain your reasoning.



Always (alternating interior angles =)

In Exercises 3–5, the diagonals of rhombus $ABCD$ intersect at E . Given that $m\angle BCA = 44^\circ$, $AB = 9$, and $AE = 7$, find the indicated measure.

3. $BC = 9$

4. $AC = 14$

5. $m\angle ADC = 92$

all sides =
 diagonal $7+7$

Rhombus

