Geometry

Feb 26- Mar 1, 2024
Chapter 7 Polygons Continue

This week's objectives from Sections 2-4 of Chapter 7.

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

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 HSG-CO.C.11	CC Mathematical Practice Focus MP2, MP3, MP6,

Week Overview: Feb 26- Mar 1, 2024

Monday   -   Practice w/ Special Parallelograms Ch 7.4 Section

Tuesday   -   7.4 BIM online completion day

Wednesday   -   Review with more activities

Thursday   -   TEST Chapter Sections   7.1-7.4

Friday   -   Makeup Day as many out for field trips

MONDAY

Warmup Watch: animation of these properties:www.youtube.com/watch?v=1xH9ry_2I88

Check and Close Homework Forms -

Work on 7.4 Practice A worksheet

- # 1-5 Use diagram to place each answer in its place,
    - also put answer beside #
- #6-7 Write the equation, then solve and give final answer
- #8-9 Graph on postnote/graph paper
- **# 10 Pd 3 --- CP students only: Complete on paper the proof**
- # 11 ALL do the problems ---

Work on 7.3 BIM online if not completed

Work on 7.4 BIM online next if all finished.

TUESDAY

Play Kahoot to warm up - skip ones with trapezoid and kite during game

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

Work on Finish 7.4 online BIM practice

Wednesday

Announce after 9th pd TUTORING today as test tomorrow

Fill in TOP page of Summary Chart - except Trapezoid/Kite lines.

Review 7.4 online missed questions

Review for Test tomorrow

  Use Past worksheets - do not forget the general other polygons than quads

  Use Teacher-made Sample Sheet

  Students ask questions such as

  - can you solve a rhombus given this side and diagonal ---yes and Mrs. Pletcher shows them by using the pythagorean theorem.
  - can you solve a parallelogram given this side and one angle ---yes and Mrs. Pletcher shows them by using the properties.

Thursday

    - TEST with the use of notes but no computer

    - COLLECT drawing notes and Packet for a grade

    - COLLECT any TRIG packet/notes from previous test if had not.

Friday

    - Do Edpuzzle on Trapezoid and Kites as introduction and easily made up by those absent

    - Studyhall rest of period

PARALLELOGRAM --- defined by 2 pairs of parallel sides
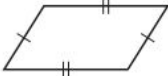
EdPuzzle notes:

Ways to Prove a Quadrilateral Is a Parallelogram

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

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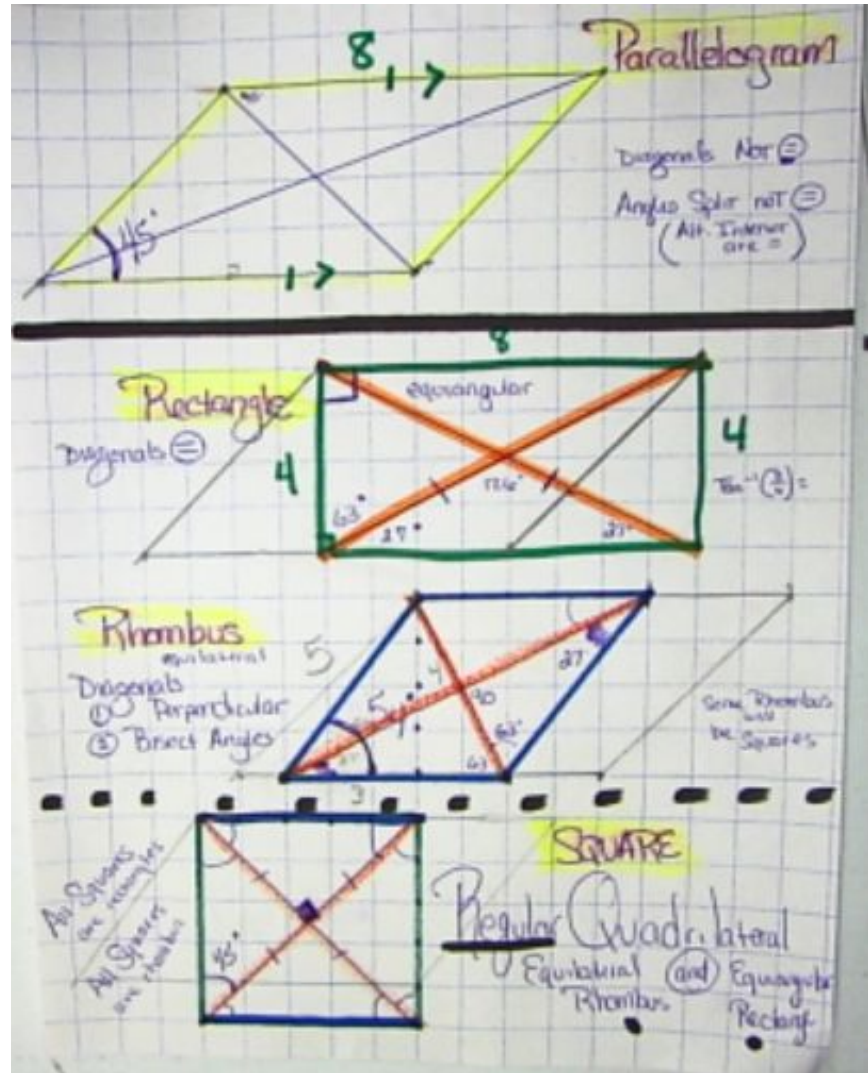
After 7.4 lesson - answer these questions (pg. 212 top)

Work with your group to determine whether the statement is sometimes, always, or never true.
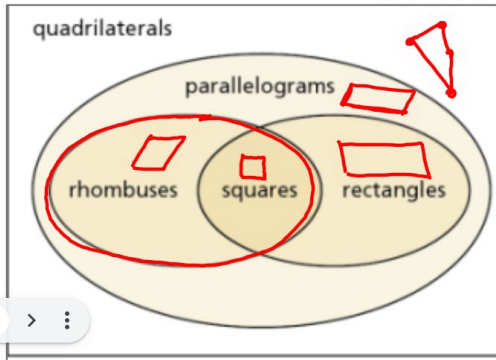
1. Squares are rhombuses. **Always**

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

3. Parallelograms are squares. **Sometimes**

4. Squares are parallelograms. **Always**

5. Rectangles are squares. **Sometimes**

6. Trapezoids are parallelograms. **Never**

quadrilaterals

parallelograms

rhombuses   squares   rectangles
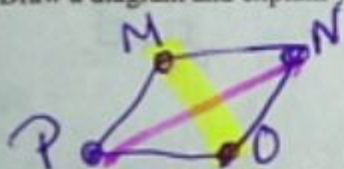
7.4 Notetaking with Vocabulary (continued)

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.

[handwritten: length] *[circled: always or sometimes true]*

[handwritten: Diagonals; Sometimes as a SQUARE]

[diagram labeled M, N, P, O]

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.

[handwritten: Always (alternating interior angles =)]

[diagram labeled P, Q, S, R]

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

3. *BC* *[handwritten: 9, all sides =]*

4. *AC* *[handwritten: 14, diagonal 7+7]*

5. $m\angle ADC$ *[handwritten: 92]*

[diagram labeled A, B, E, with 9 and 7; handwritten: Rhombus]