CP Geometry

Mar 4-8, 2024
Finish Chapter 7 Polygons & Start Chapter 11 Areas

Week Overview: Mar 4-8, 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 - Tuesday Objectives

Mathematical goals

This lesson unit is intended to help you assess how well students are able to:

- Name and classify quadrilaterals according to their properties.
- Identify the minimal information required to define a quadrilateral.
- Sketch quadrilaterals with given conditions.

Lesson Type

- ***P*** *Problem Solving*

Mathematical Practices

This lesson involves a range of *mathematical practices* from the standards, with emphasis on:

- ***MP1:*** *Make sense of problems and persevere in solving them*
- ***MP2:*** *Reason abstractly and quantitatively*
- ***MP3:*** *Construct viable arguments and critique the reasoning of others*
- ***MP6:*** *Attend to precision*
- ***MP7:*** *Look for and make use of structure*
- ***MP8:*** *Look for and express regularity in repeated reasoning*

Mathematical Content Standards

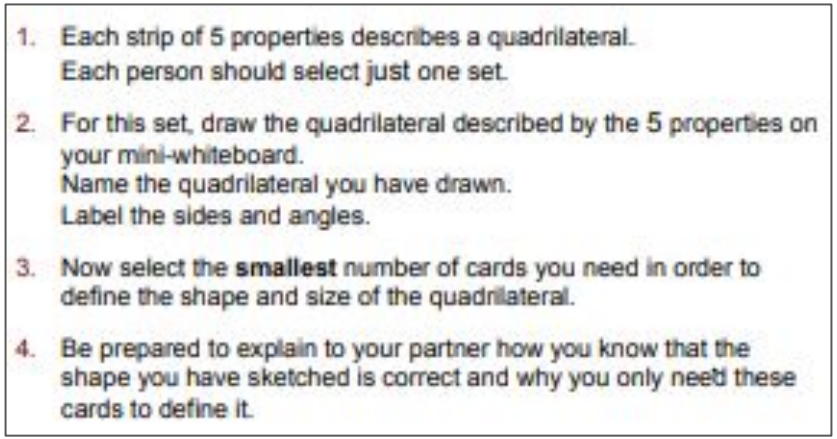
This lesson asks students to select and apply mathematical content from across the grades, including the *content standards*:

G: *Draw, construct, and describe geometrical figures and describe the relationships between them.*

Describing & Defining Quadrilaterals

Monday

- Review the test from Friday and the Pretask Questionnaire
- Assigned groups of 3-4 based on diversifying groups based on test scores
- Students make a poster determining which figure it is and then drawing it to describe the figure such as square and draw to scale with all measurements, if possible.
- Students may finish drawings as HW



1. Each strip of 5 properties describes a quadrilateral.
   Each person should select just one set.
2. For this set, draw the quadrilateral described by the 5 properties on your mini-whiteboard.
   Name the quadrilateral you have drawn.
   Label the sides and angles.
3. Now select the **smallest** number of cards you need in order to define the shape and size of the quadrilateral.
4. Be prepared to explain to your partner how you know that the shape you have sketched is correct and why you only need these cards to define it.

Describing & Defining Quadrilaterals - continue

Tuesday

- Students use their drawings and make a poster to present their conclusions to other groups.
- The last 15 minutes of class, each student completes an individual revisited pre to post task sheet.

Chapter 11 : Area of polygons and circles intro.

Wednesday- Mostly section 11.3 in textbook

- Warmup with worksheet of samples of common shapes using formula sheet
  - Square, Rectangle, Parallelogram, Trapezoid, Triangle, Circle
- Notes - problem solve by breaking downs
  - Kite and Rhombuses formulas using diagonals as triangle breakdown
  - Look at composite shapes and view as breakdowns of above figures.
  - Then discuss REGULAR polygon breakdowns

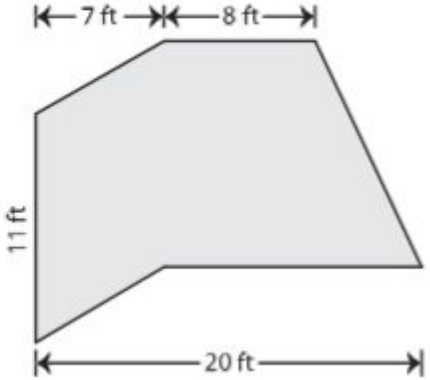
Lesson Objective(s): Students will find areas of rhombuses and kites. Students will find angle measures in regular polygons. Students will find areas of regular polygons. **Previous Learning:** Earlier in the book, students found the areas of triangles and special quadrilaterals. **New Vocabulary:** center of a regular polygon, radius of a regular polygon, apothem of a regular polygon, central angle of a regular polygon	**CC State Standards** HSG-GMD.A.3	**CC Mathematical Practice Focus** MP1, MP2, MP3

Thursday - Continue in your groups from Monday to practice

Give worksheet packet on composite shapes from another textbook/website.

- Divide up the problems so that each person has at least “4” problems to do fully.
- Show the division
- Show formulas used
- Show units

2)



Friday - Section 11.3 Regular Polygon Area

Student Journal pg. 327 : Find the area of #1 & #2

Notes on finding the Area of Regular polygon terms - apothem, radius, side - use student journal pg. 326 for notes example and continue with pg. 328

Steps:

1) From the center, breakdown a right triangle to the side
2) find the central angle.= 360 / 2n
3) Find the apothem or side using TAN function
4) Find the area of the right triangle and then multiply by the number of sides*2