Eureka Math

4th Grade
Module 4
Lesson 16

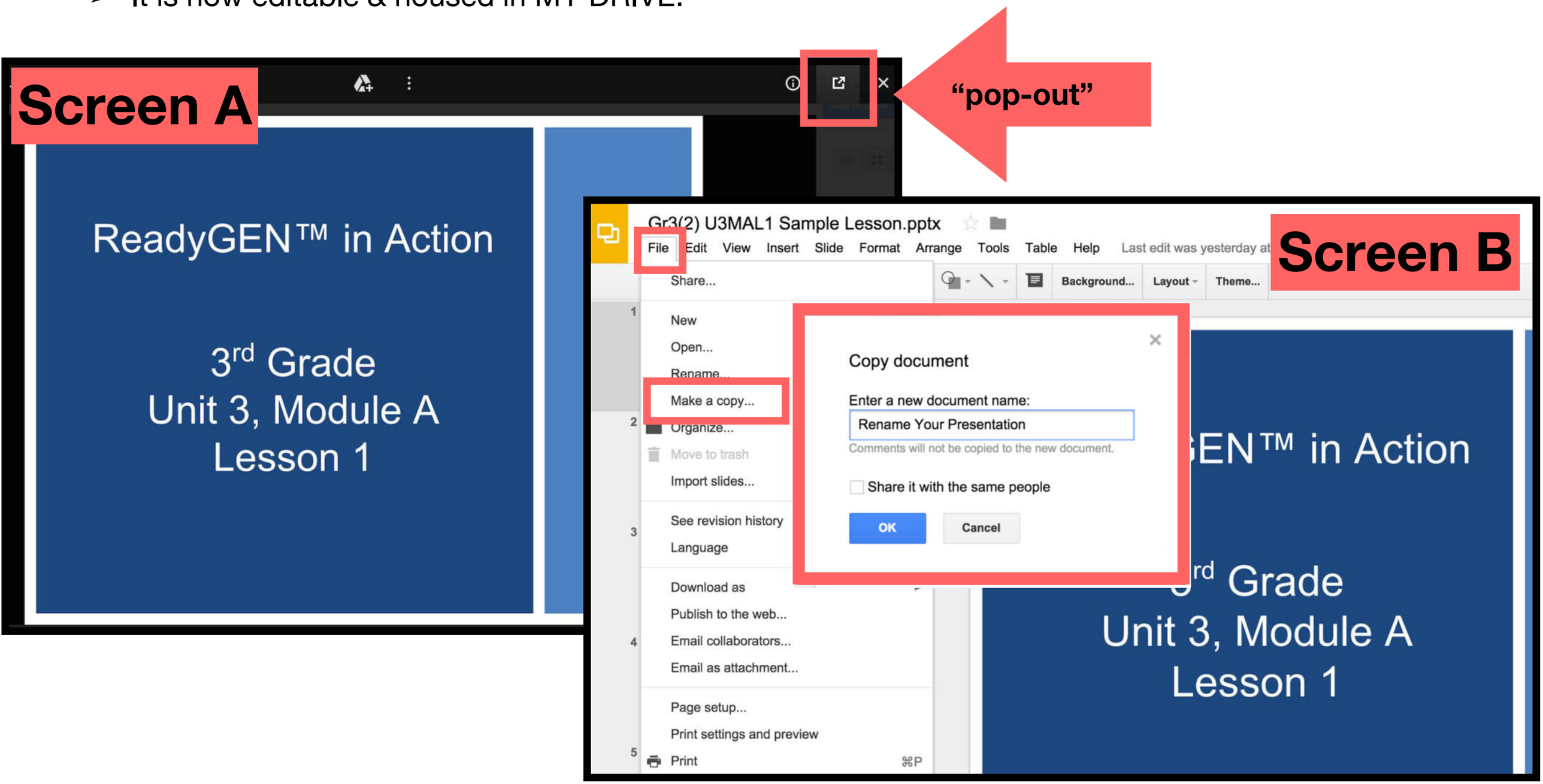
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

Directions for customizing presentations are available on the next slide.

Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

- ➢ When the Google Slides presentation is opened, it will look like Screen A.
- ➢ Click on the “pop-out” button in the upper right hand corner to change the view.
- ➢ The view now looks like Screen B.
- ➢ Within Google Slides (not Chrome), choose FILE.
- ➢ Choose MAKE A COPY and rename your presentation.
- ➢ Google Slides will open your renamed presentation.
- ➢ It is now editable & housed in MY DRIVE.

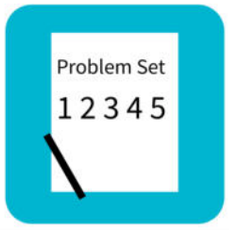


Icons

Read, Draw, Write

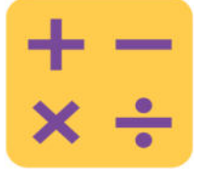
Learning Target

Personal White Board



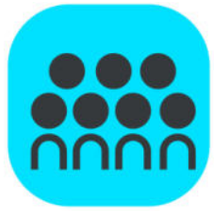
Problem Set

Manipulatives Needed



Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

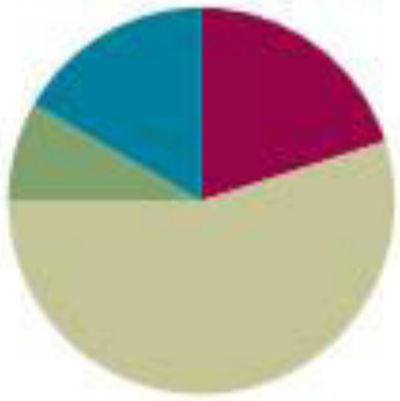
Small Group Time

Lesson 16

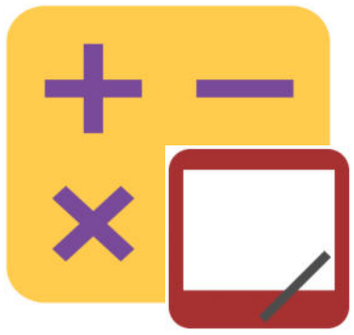
Objective: Reason about attributes to construct quadrilaterals on square or triangular grid paper.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



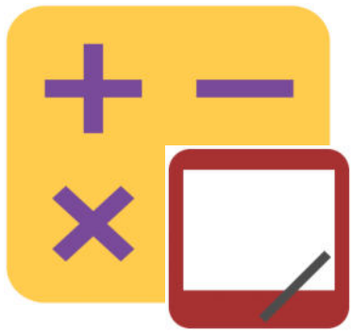
I can reason about attributes to construct quadrilaterals on square or triangular grid paper.



Fluency Practice

Add and Subtract

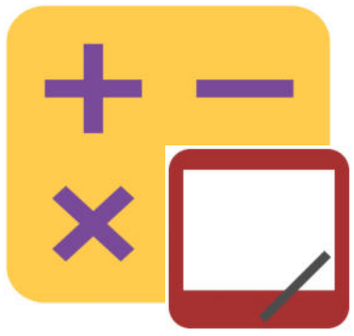
Write 765 thousands 198 ones



Fluency Practice

Add and Subtract

Write 156 thousands 185 ones

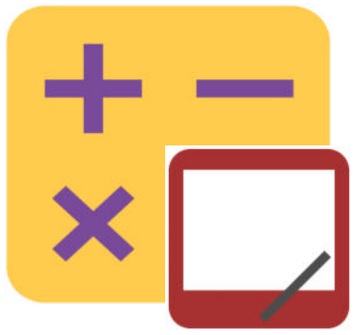


Fluency Practice

Add and Subtract

765,198 and 156,185

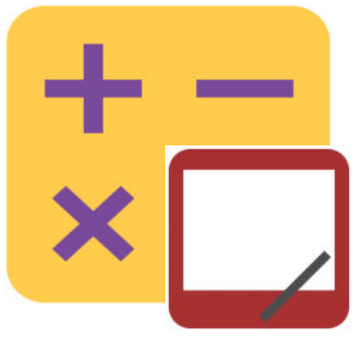
Find the sum standard algorithm.



Fluency Practice

Add and Subtract

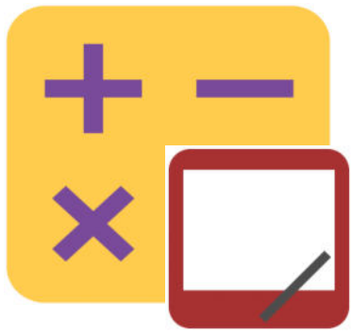
Write 716 thousands 450 ones



Fluency Practice

Add and Subtract

Write 325 thousands 139 ones



Fluency Practice

Add and Subtract

716,450 and 325,139

Find the difference
standard algorithm.

Fluency Practice

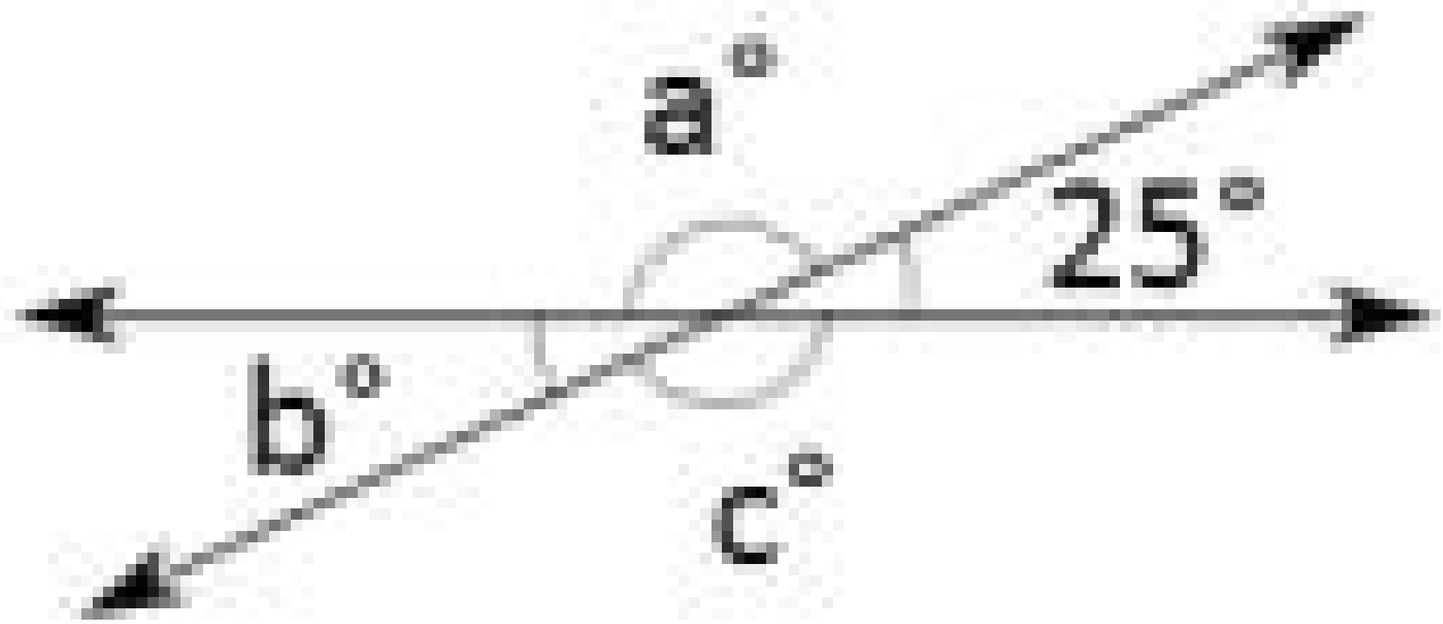
Find the Unknown Angle

On your white board, write a number sentence to find the measure of ∠x°

Fluency Practice

Find the Unknown Angle

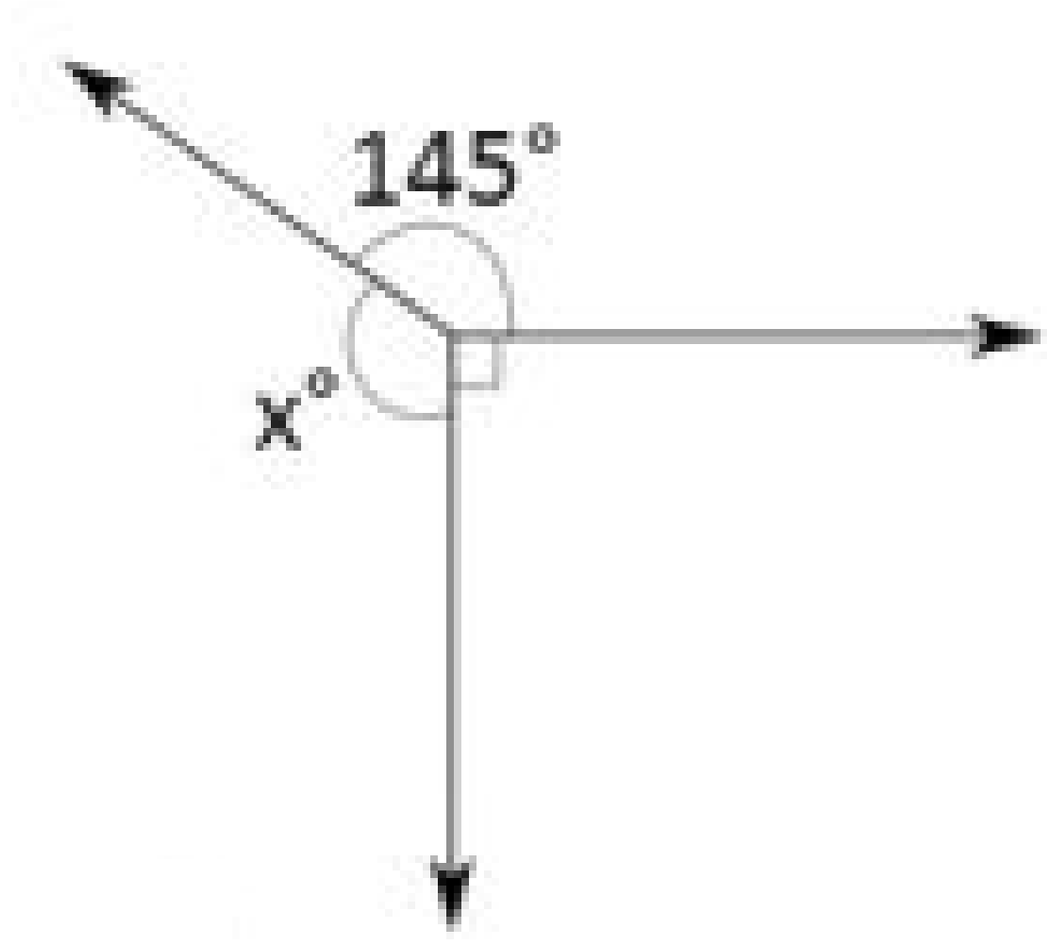
Write a number sentence to find ∠x°



Fluency Practice

Find the Unknown Angle

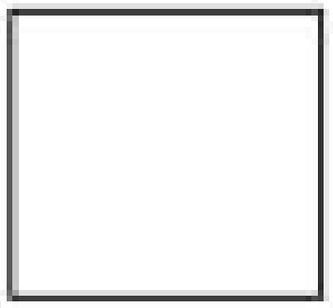
Write a number sentence to find ∠x°



Fluency Practice

Classify the Quadrilateral

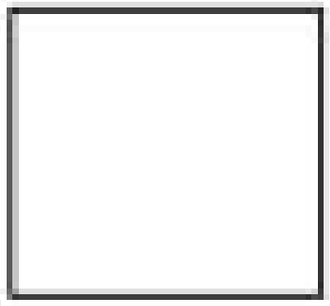
How many sides does the polygon have?



What is the name of a polygon with four sides?

Fluency Practice

Classify the Quadrilateral



Each angle in this quadrilateral is 90°.
It also has four equal sides.
What is a more specific name?

Fluency Practice

Classify the Quadrilateral

Is this polygon a quadrilateral?

Why or why not?

Fluency Practice

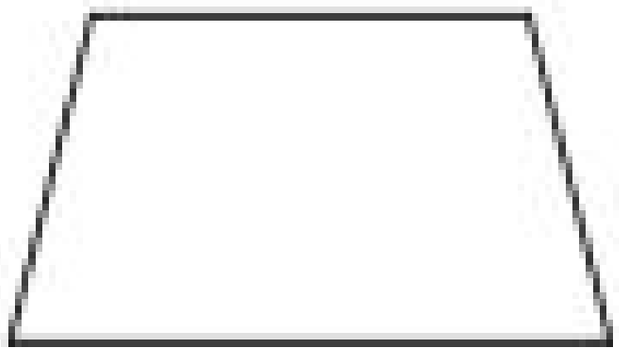
Classify the Quadrilateral

Is this polygon a quadrilateral?

It has two sets of parallel sides.
Is it a rectangle?
Why or why not?

Fluency Practice

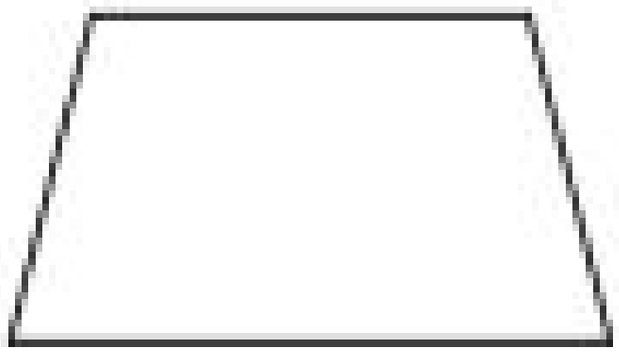
Classify the Quadrilateral



Is this polygon a quadrilateral?

Fluency Practice

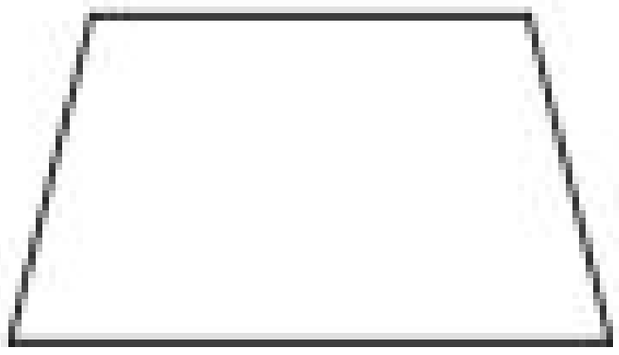
Classify the Quadrilateral



Is it a rectangle?

Fluency Practice

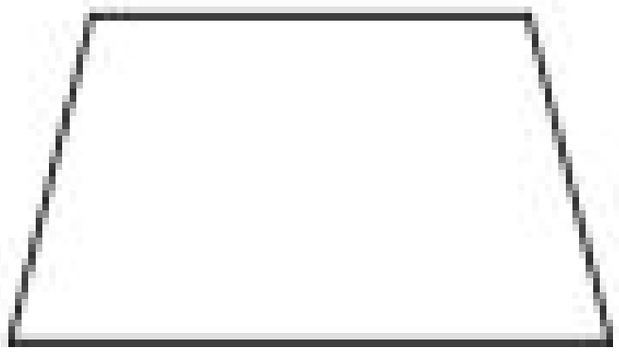
Classify the Quadrilateral



Is it a parallelogram?

Fluency Practice

Classify the Quadrilateral



Classify this quadrilateral

Fluency Practice

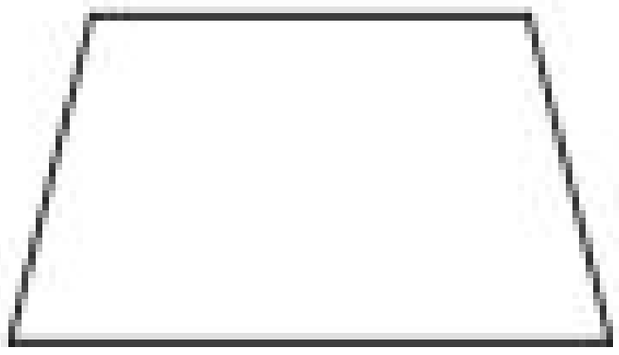
Classify the Quadrilateral

It is a TRAPEZOID!

Describe its attribute.

Fluency Practice

Classify the Quadrilateral

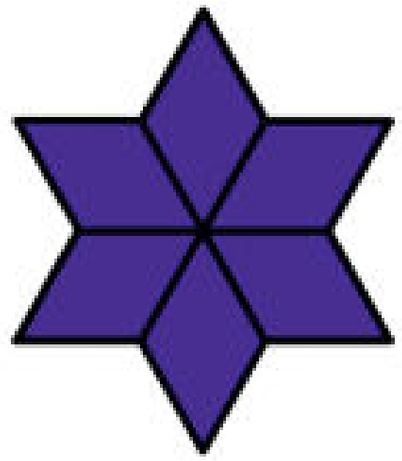


It is a TRAPEZOID!

It has at least one pair of parallel sides.

Application Problem

Within the star, find at least two different examples for each of the following.



Explain which attributes you used to identify each.

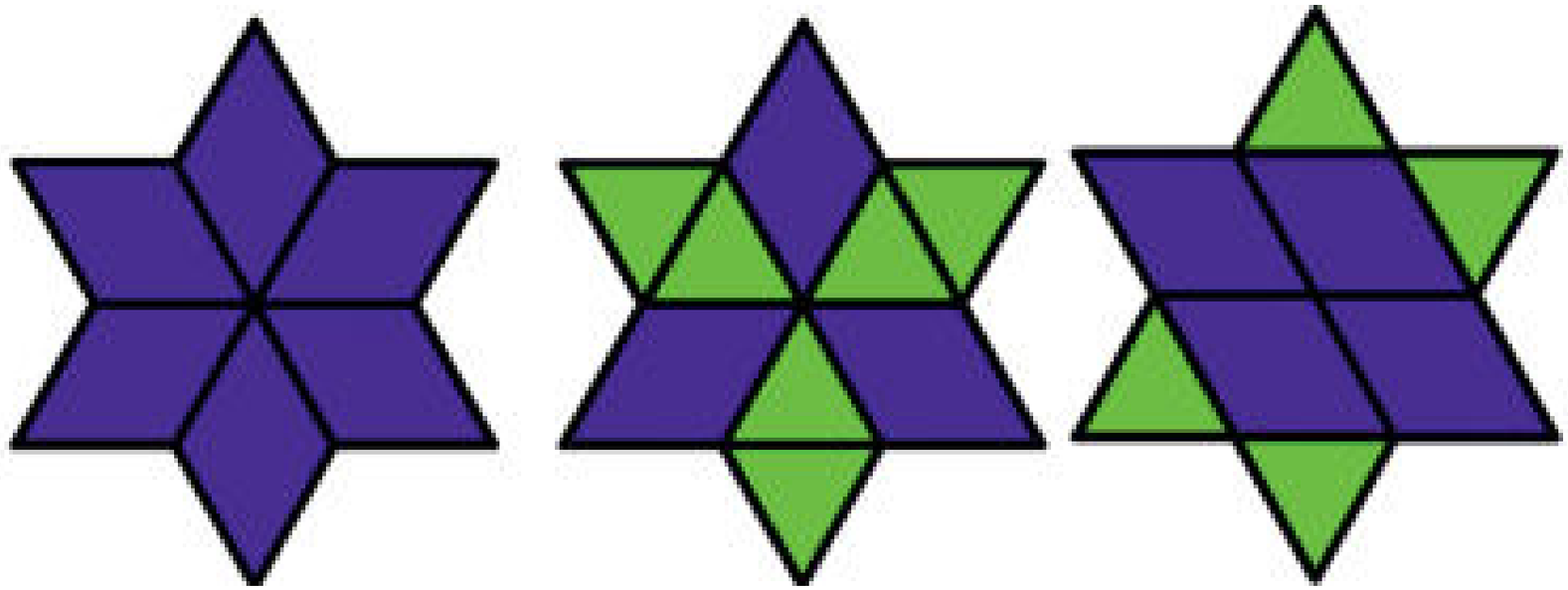
Equilateral triangles

Trapezoids

Parallelograms

Rhombuses

Application Problem



Explain which attributes you used to identify each.

Equilateral triangles

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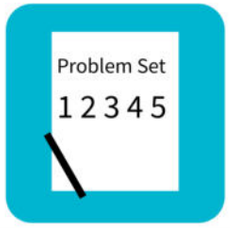
Parallelograms

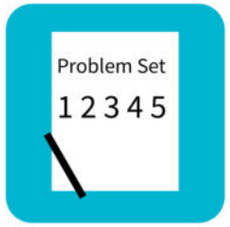
Rhombuses



Concept Development

Materials

(T/S) Rectangular and triangular grid paper, ruler, right angle template



Concept Development

Classify and Construct Quadrilaterals

Please see Teacher Manual page 245

(Module 4 / Lesson 16 / Concept Devl)

Problem Set

Name _____ Date _____

1. On the grid paper, draw at least one quadrilateral to fit the description. Use the given segment as one segment of the quadrilateral. Name the figure you drew using one of the terms below.

Parallelogram	Trapezoid	Rectangle
Square		Rhombus

a. A quadrilateral that has at least one pair of parallel sides.	b. A quadrilateral that has four right angles.

Debrief

What figure did you draw in Problem 1(a)? Why are there so many different shapes that can be constructed?

How did the gridlines in Problem 1(b) help you to draw the right angles?

How are the shapes in Problems 2(a) and 2(b) similar and different?

Debrief

How are the attributes of a rhombus and a rectangle similar? What two attributes distinguish a rhombus from a rectangle in Problem 3?

Which grid is more challenging for you, the triangular or the square grid? Explain which quadrilaterals are easiest for you to draw on either grid. Why do you think that is so?

Exit Ticket

Name _____ Date _____

1. Construct a parallelogram that does not have any right angles on a rectangular grid.