

Math Investigation Centers



2nd Grade ~ Unit 11 Geometry and Fraction Concepts

Math and Literature

Greedy Shapes:

Be a shape shifter to help the Greedy Triangle find all the different shapes it can be

Math in the Real World

Grandma's Quilt:

Many things are found in rows and columns; such as movie theater seats, egg cartons, quilts, etc. You will help Grandma create a variety of quilts for her grandchildren using rows and columns.

Math in the Real World

Windows in the City:

Kai and Alicia are looking at the windows in their city. Help them create different windows for their city.

Student Choice

Math and Logic

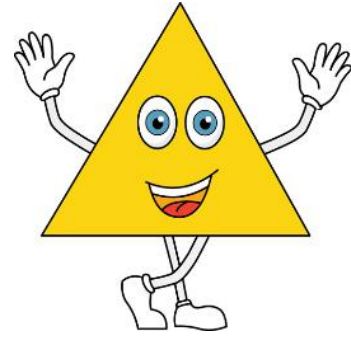
Guess My Shape:

With partner, can you guess each other's shape?

Math Investigation Center

Greedy Shapes

Unit of Study 11



Core Correlation: 2.G.1

DOK: 3; **Proficiency Level:** 4

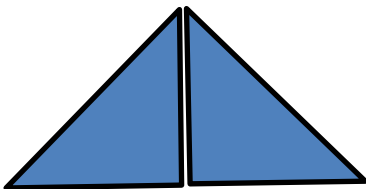
Type of Activity: Math and Literature

Materials: Greedy Shapes cutouts; tape or glue; scissors; poster paper; pencil; The Greedy Triangle by Marilyn Burns

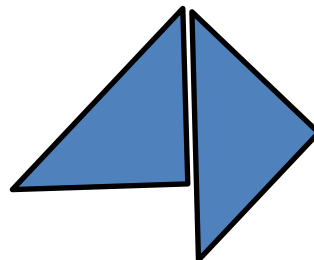
Introduction: Be a shape shifter to help the Greedy Triangle find all the different shapes it can be.

Instructions:

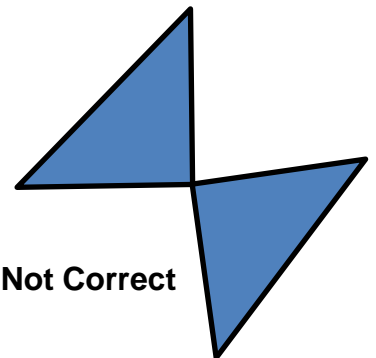
- Read or listen to the story, The Greedy Triangle by Marilyn Burns <https://www.youtube.com/watch?v=aE0yle-z5uE>
- Carefully cut out the isosceles triangles from the Greedy Shapes Cut Outs page.
- Use two triangles and place them together along edges with no overlapping. The triangles need to touch full side to full side and not point-to-point.



Correct

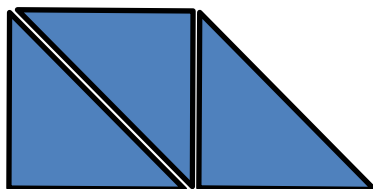


Not Correct

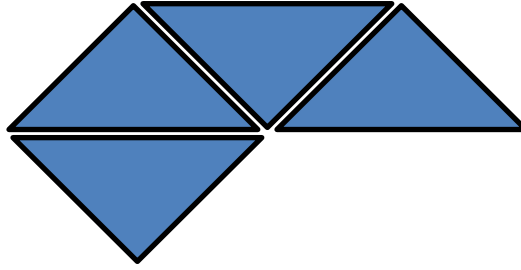


Not Correct

- How many different shapes can you make?
- Sort and classify the shapes.
- Attach the shapes to a poster according to the classification.
- How many shapes would be possible with three triangles? Four triangles?
- Build, sort and classify the shapes with three triangles. Here's an example:



- Build, sort and classify the shapes with four triangles. Here's an example:



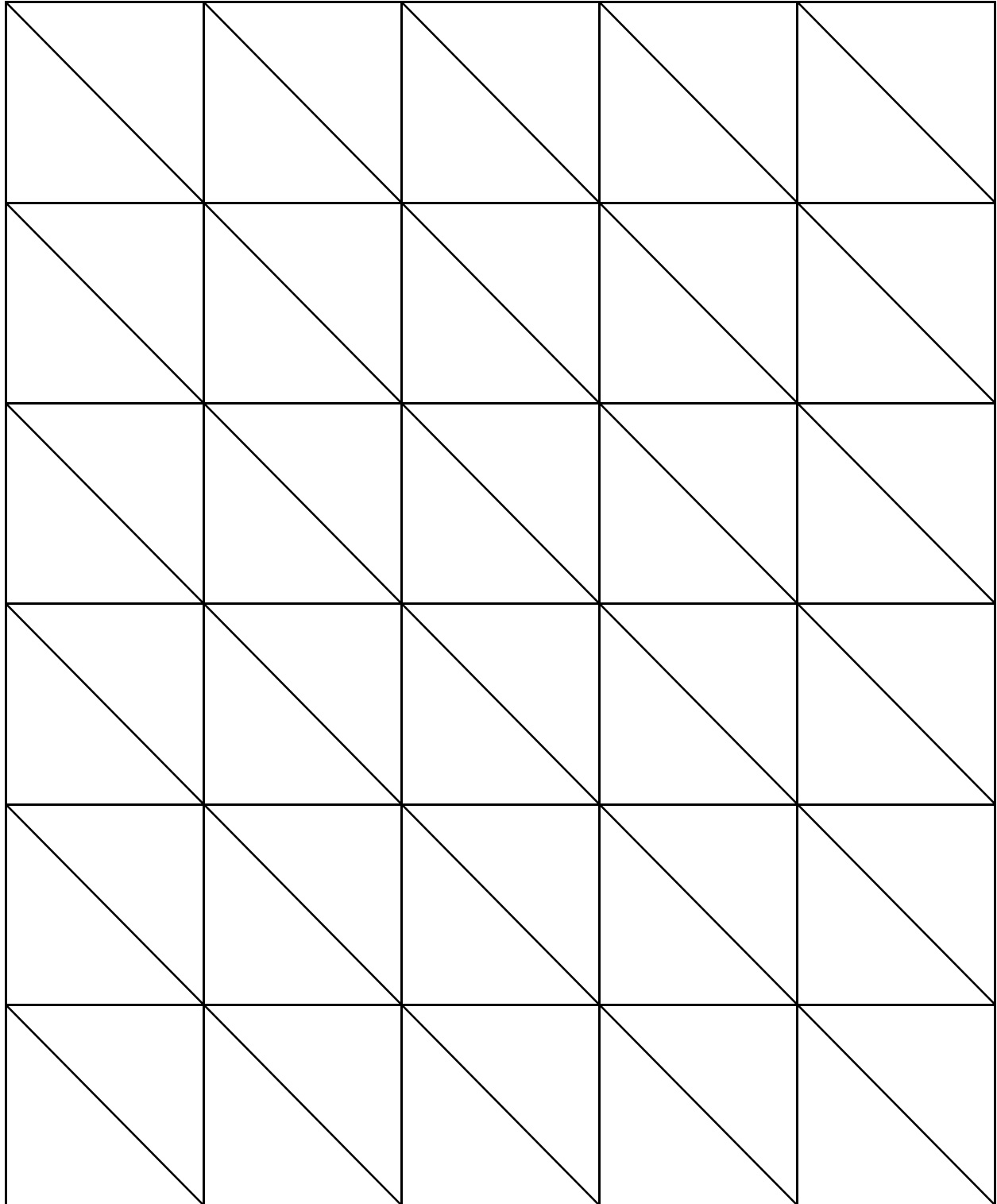
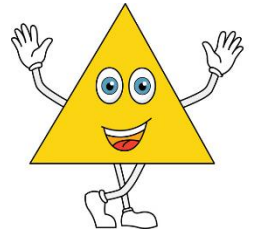
Assessment:

Grade will be determined by

- Completion of the 2 triangle poster
- Completion of the 3 triangle poster
- Completion of the 4 triangle poster

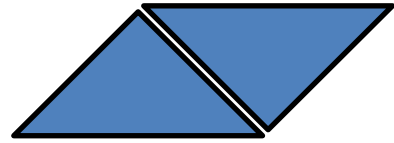
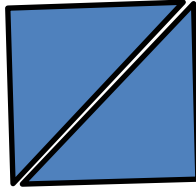
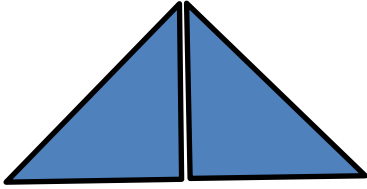
Greedy Shapes Cut Outs

Isosceles Triangles

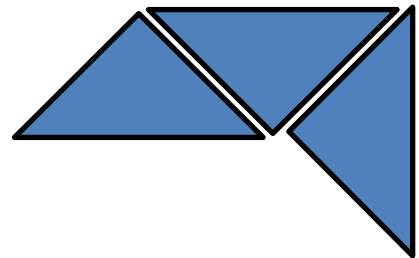
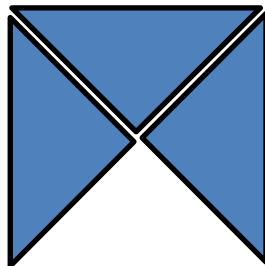
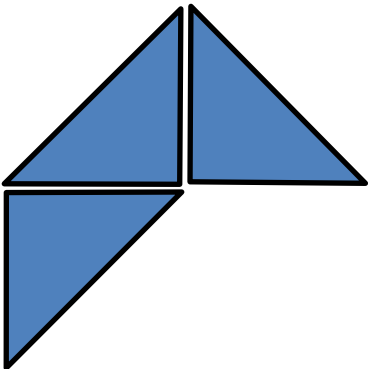
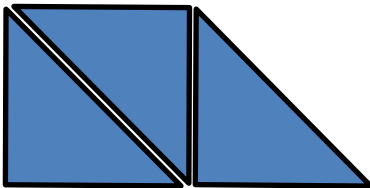


Greedy Shapes Answer Key

Two Triangles

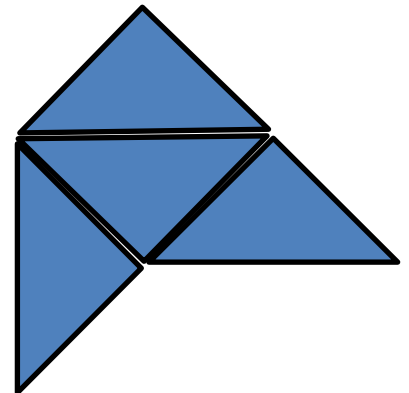
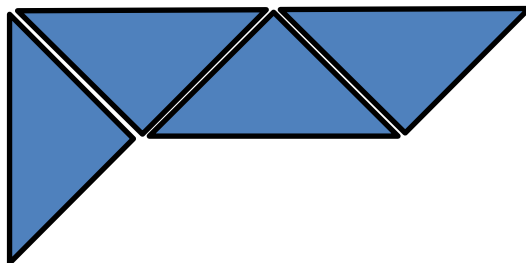
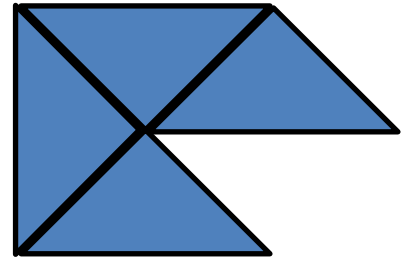
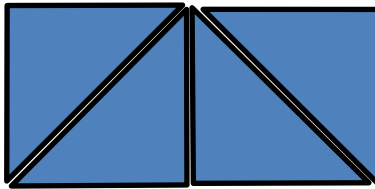
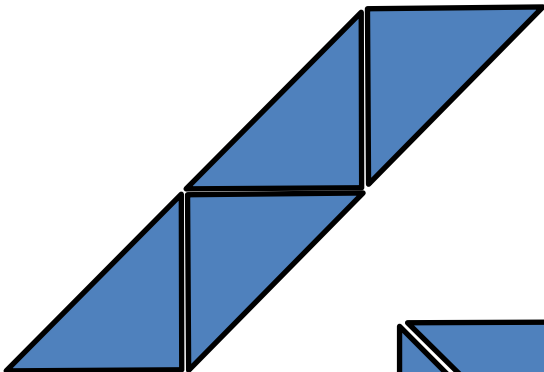
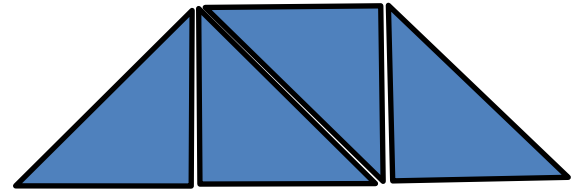
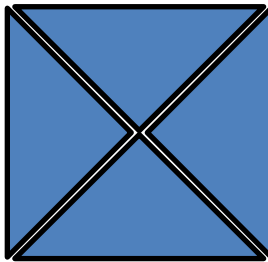
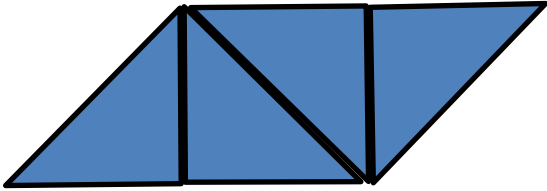
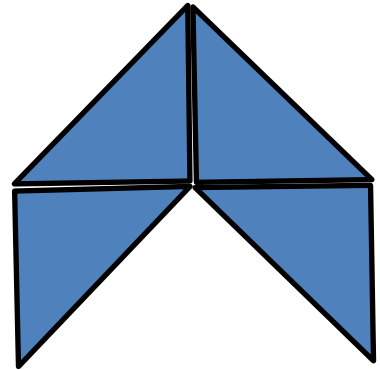
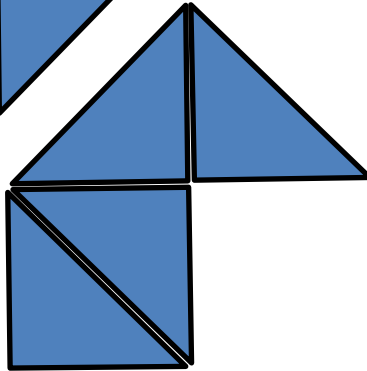
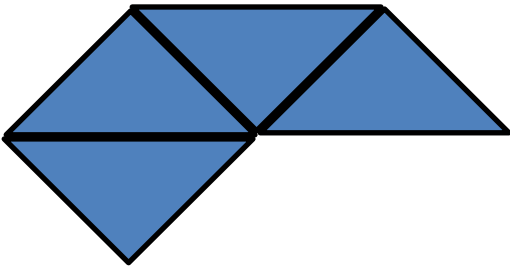
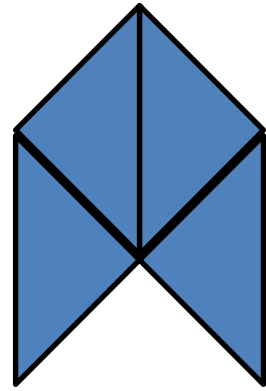
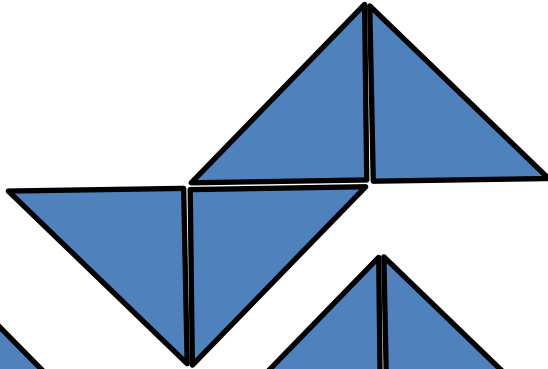
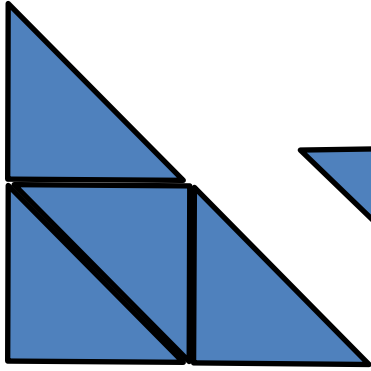


Three Triangles



Greedy Shapes Answer Key (cont.)

Four Triangles



Math Investigation Center

Grandma's Quilt

Unit of Study 11

Core Correlation: 2.G.2

DOK: 3; Proficiency Level: 4

Type of Activity: Math in the Real World

Materials: Grandma's Quilt Recording Sheet, 1-inch tiles, glue, paper, pencil

Introduction: Many things are found in rows and columns; such as movie theater seats, egg cartons, quilts, etc. You will help Grandma create a variety of quilts for her grandchildren using rows and columns.

Instructions:

- Create a quilt for each of the grandchildren.
 - Zoe's quilt will have 4 rows and 5 columns.
 - Zachery's quilt will have 3 rows and 4 columns
 - Cierra's quilt will have 2 rows and 4 columns
 - Quinton's quilt will have 4 rows and 4 columns
- Draw the array and record the total number of squares on the recording sheet.
- Write the repeated addition equation for each quilt on the recording sheet.

Assessment:

Grade will be determined by completion of the following:

- Completion of Grandma's Quilt Recording Sheet



Grandma's Quilts

Recording Sheet



Name: _____

Student	Dimensions	Array	Repeated Addition Equation
Zoe	4 rows and 5 columns		
Zachery	3 rows and 4 columns		
Cierra	2 rows and 4 columns		
Quinton	4 rows and 4 columns		

Math Investigation Center

Guess My Shape

Unit of Study 11

Core Correlation: 2.G.1

DOK: 2; **Proficiency Level:** 4

Type of Activity: Math and Logic

Materials: pencil, 8 index cards

Introduction: With partner, can you guess each other's shape?

Instructions:

- On one side of an index card, write a list of clues that describe the attributes of a triangle.
- Repeat this process on a separate index card for each shape listed below:
 - Pentagon
 - Cubes
 - Square
 - Rectangle
 - Parallelogram
 - Hexagon
 - Pentagon
- Give your index cards to a partner. On the backside of the index card, they need to draw and label the shape you described. For example, the partner would draw and label a triangle.

Assessment:

Grade will be determined by the following:

- Completion of cards



Math Investigation Center

Windows in the City

Unit of Study 11

Core Correlation: 2.G.1, 2.G.2, 2.G.3

DOK: 3; **Proficiency Level:** 4

Type of Activity: Math in the Real World

Materials: Windows in the City Performance Task

Introduction: Kai and Alicia are looking at the windows in their city. Help them create different windows for their city.

Instructions:

- Complete the performance task – Windows in the City

Assessment:

Grade will be determined by the following:

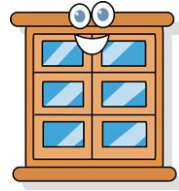
- Completion of the performance task – Windows in the City



Activity adapted from Go Math, Grade 2, Chapter 11, Performance Task

Windows in the City

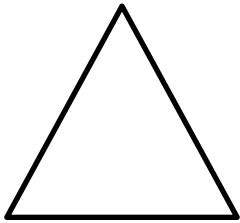
Performance Task



Kai and Alicia are looking at the windows in their city. The windows are in many different shapes.

1. Kai sees a window that has a shape he really likes. The window has all straight sides. It has more than 4 angles and fewer than 7 angles. Draw a shape that the window could be.

2. Alicia sees a window in this shape.

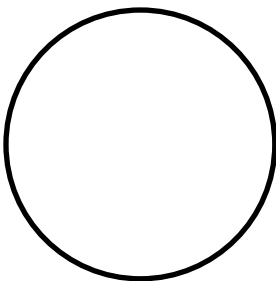


What is the name of this shape? _____

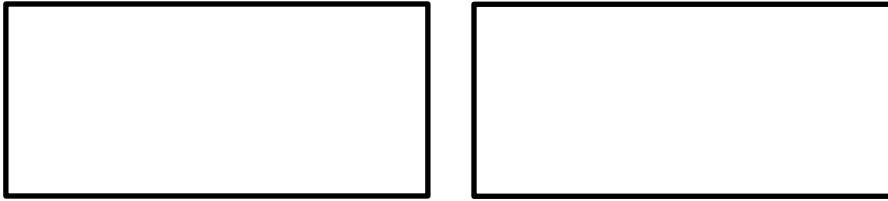
How many sides does it have? _____ sides

How many vertices does it have? _____ vertices

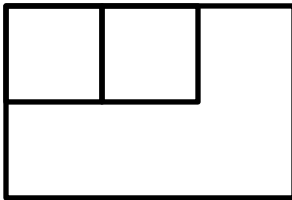
3. Kai sees a window in the shape of a circle.
The circle is divided into fourths. Draw to show the window that Kai sees.



4. Alicia sees a window in the shape of a rectangle.
The window is divided into 3 equal parts. Each part is called a _____.
Draw lines to show 2 ways a rectangle can be divided into 3 equal parts.



5. Kai also sees a window in the shape of a rectangle. What is the total number of same-size square glass tiles that could cover the window?



6. Alicia sees 3 windows. Each window is in the shape of a quadrilateral. How many sides are there in all?

_____ sides

Explain how you know. _____
