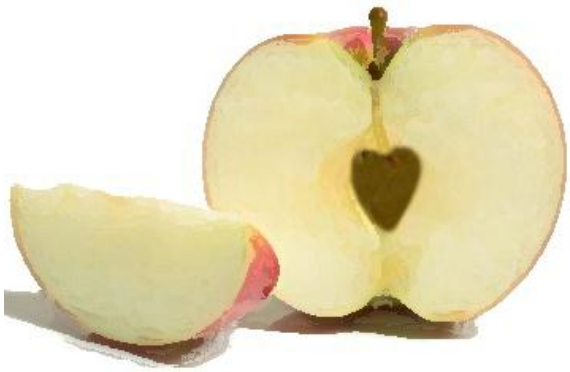


Getting to the Core

Geometry

Fourth Grade Student Pages

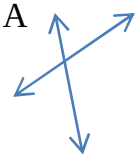
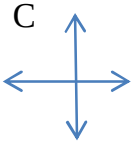
Pre-Assessment

Directions: Answer each question. Some questions may have more than one correct answer.

1. Which of these is a line segment?

A  B  C 

2. Which lines below are parallel?

A  B  C 

3. Which polygon has two sets of parallel lines?

A  B  C 

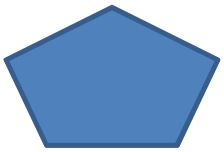
4. How many acute angles are in this polygon?

A 5

B 4

C 3

D 2



5. Draw an obtuse angle:

6. Which shapes have an obtuse angle?

A  B 

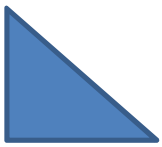
C  D 

7. Draw a shape with at least one right angle. Label the parts of the shape.

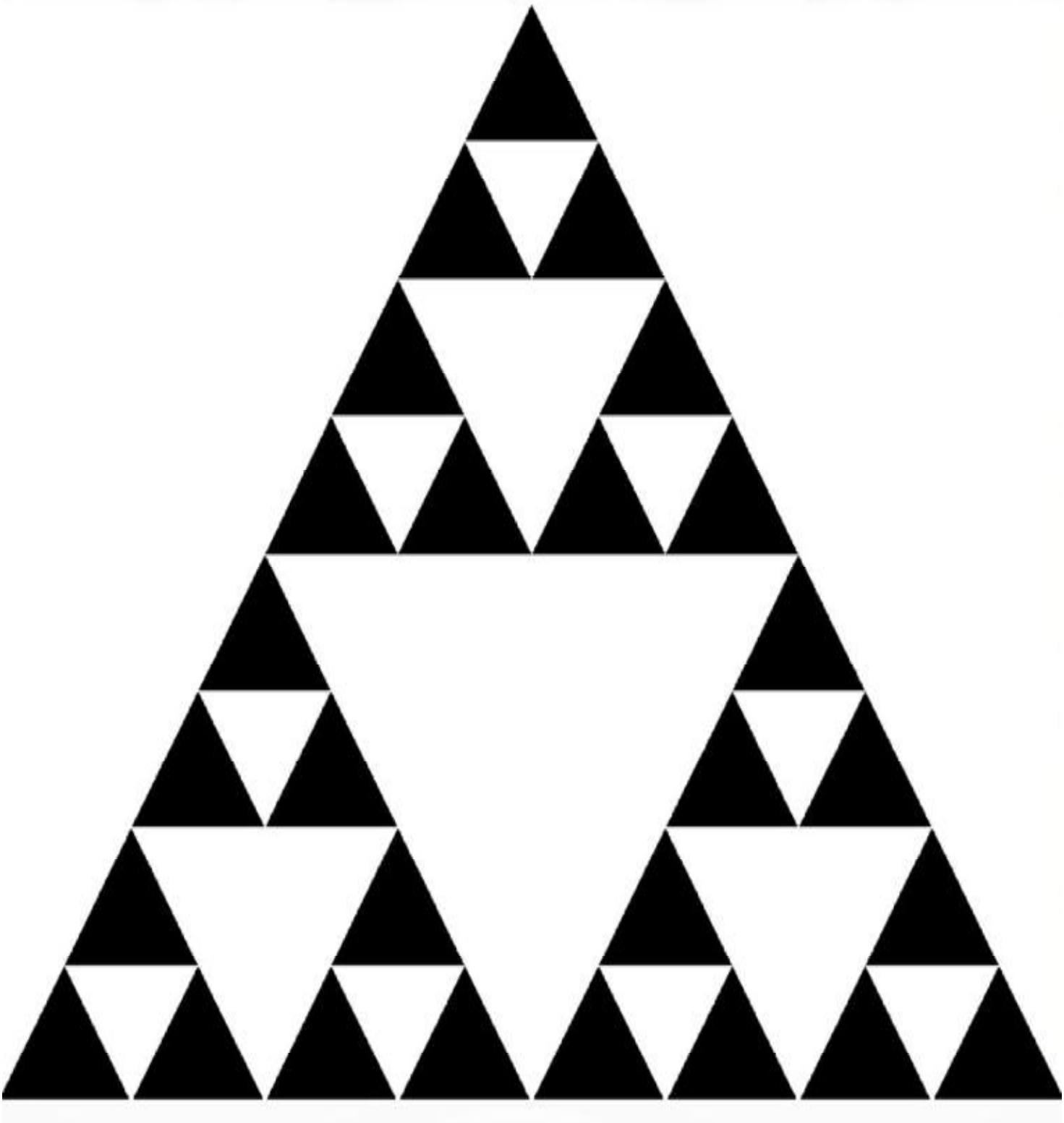
8. Which of these shapes have NO right angles?
   A right triangle
   B rectangle
   C acute triangle

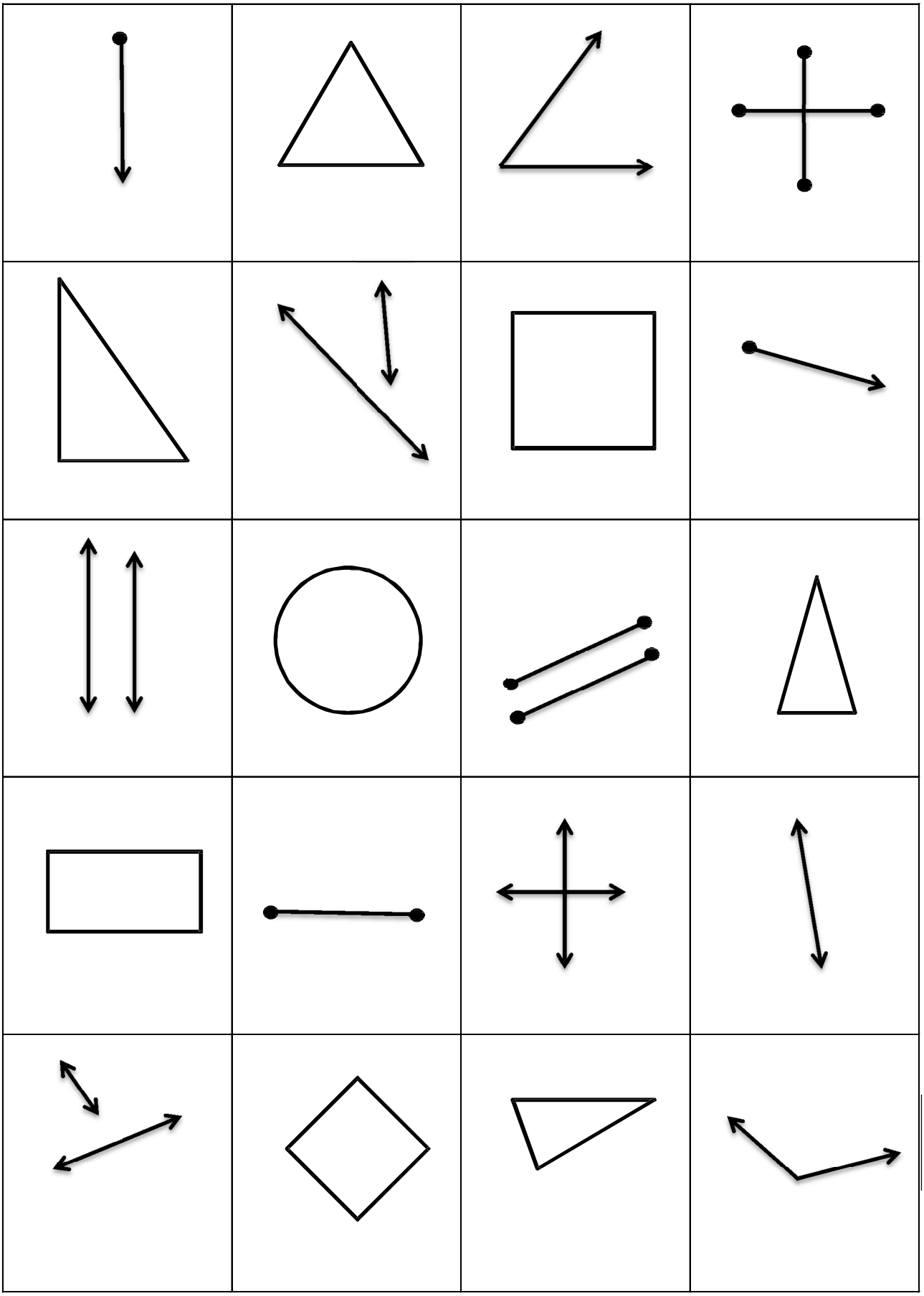
9. Which shapes have TWO sets of parallel lines?
   A triangle
   B rectangle
   C trapezoid
   D parallelogram

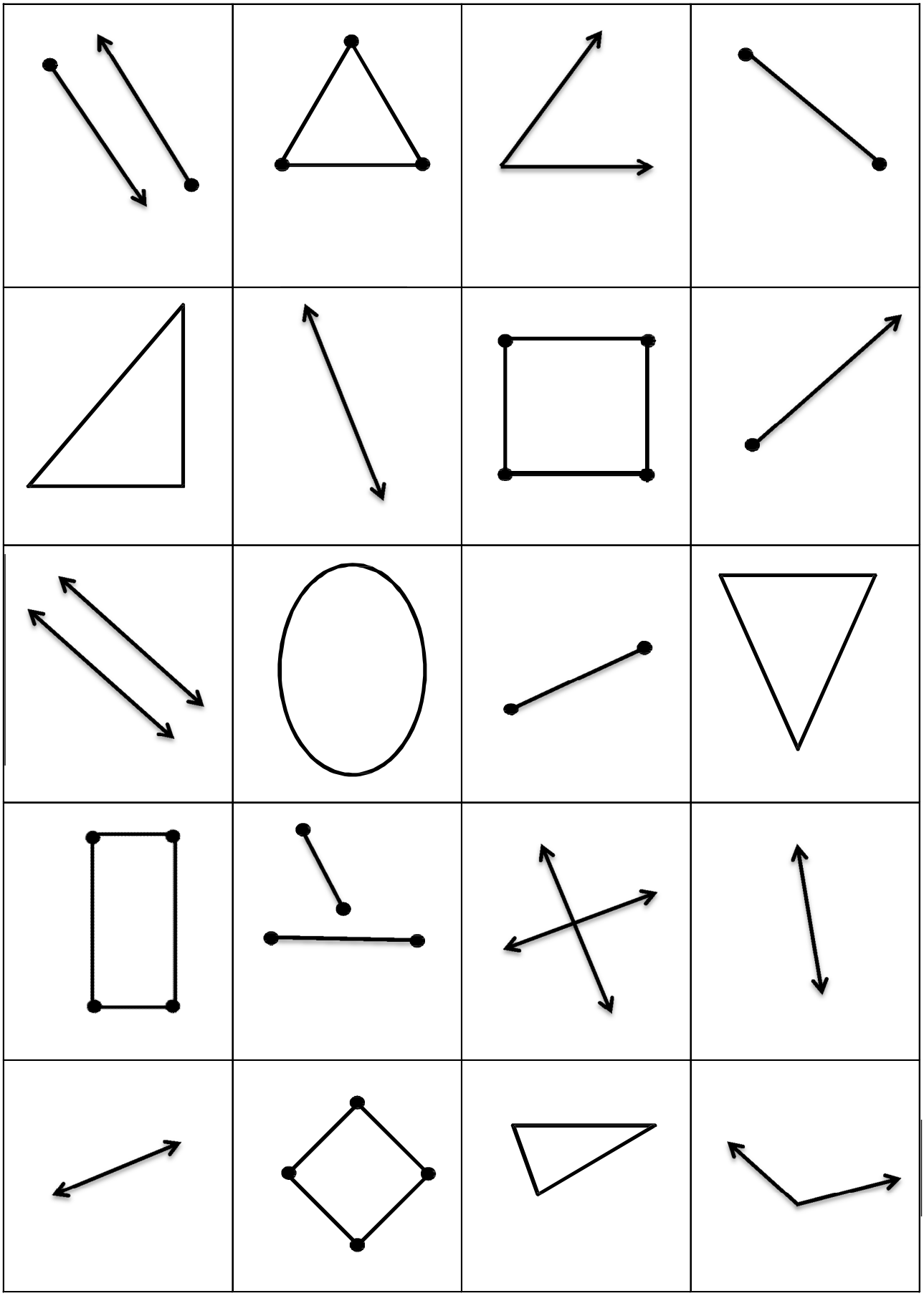
10. Alex is teaching Nicolas about triangles. He says the triangle below is an acute triangle. Is he right or wrong? Explain how you know?



Sierpinski Triangle







Lesson 1 Homework

Name:_____

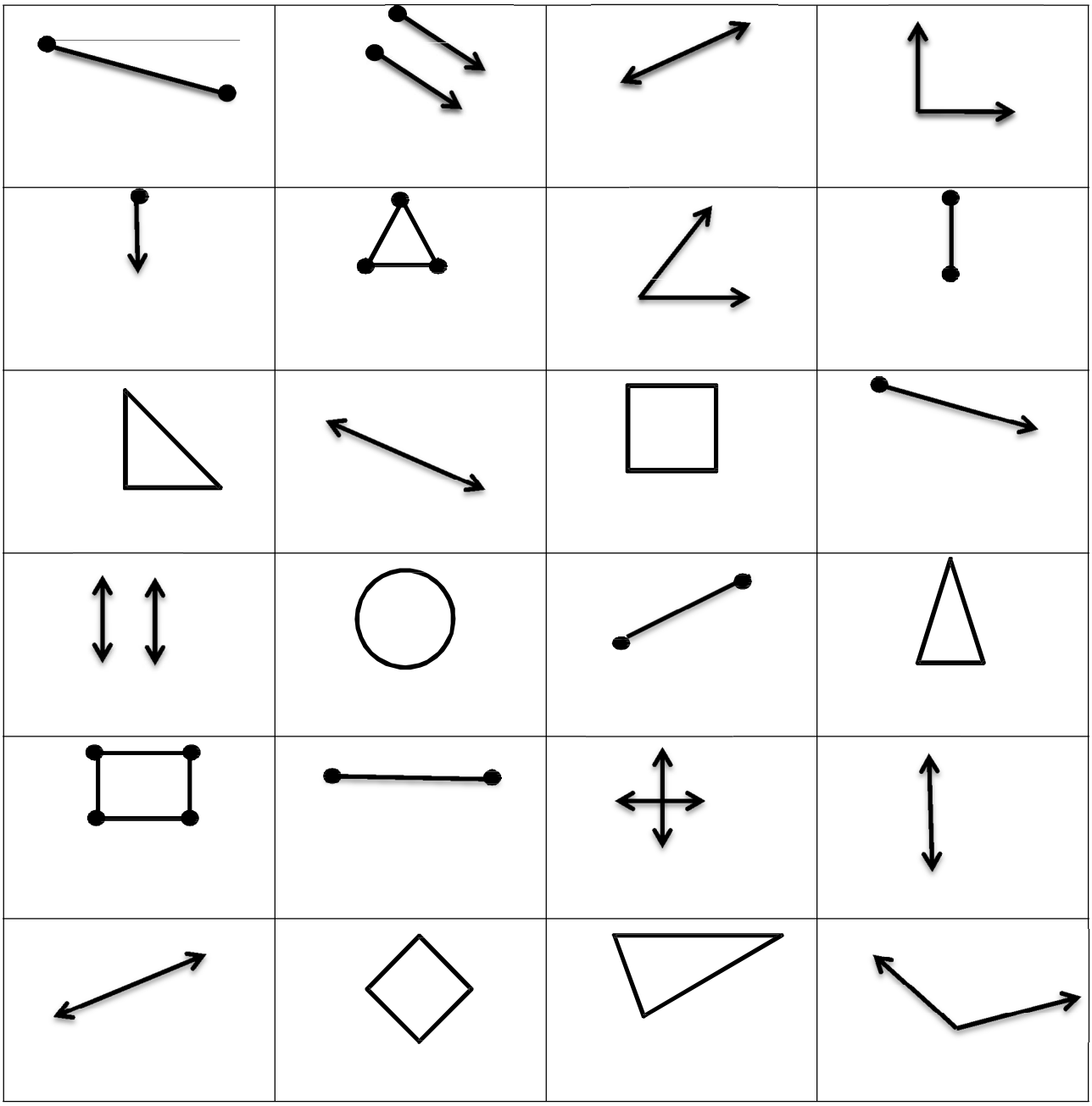
Color the **lines yellow**.

Color the **line segments blue**.

Color the **rays orange**.

Color the **angles green**.

Color the points red.

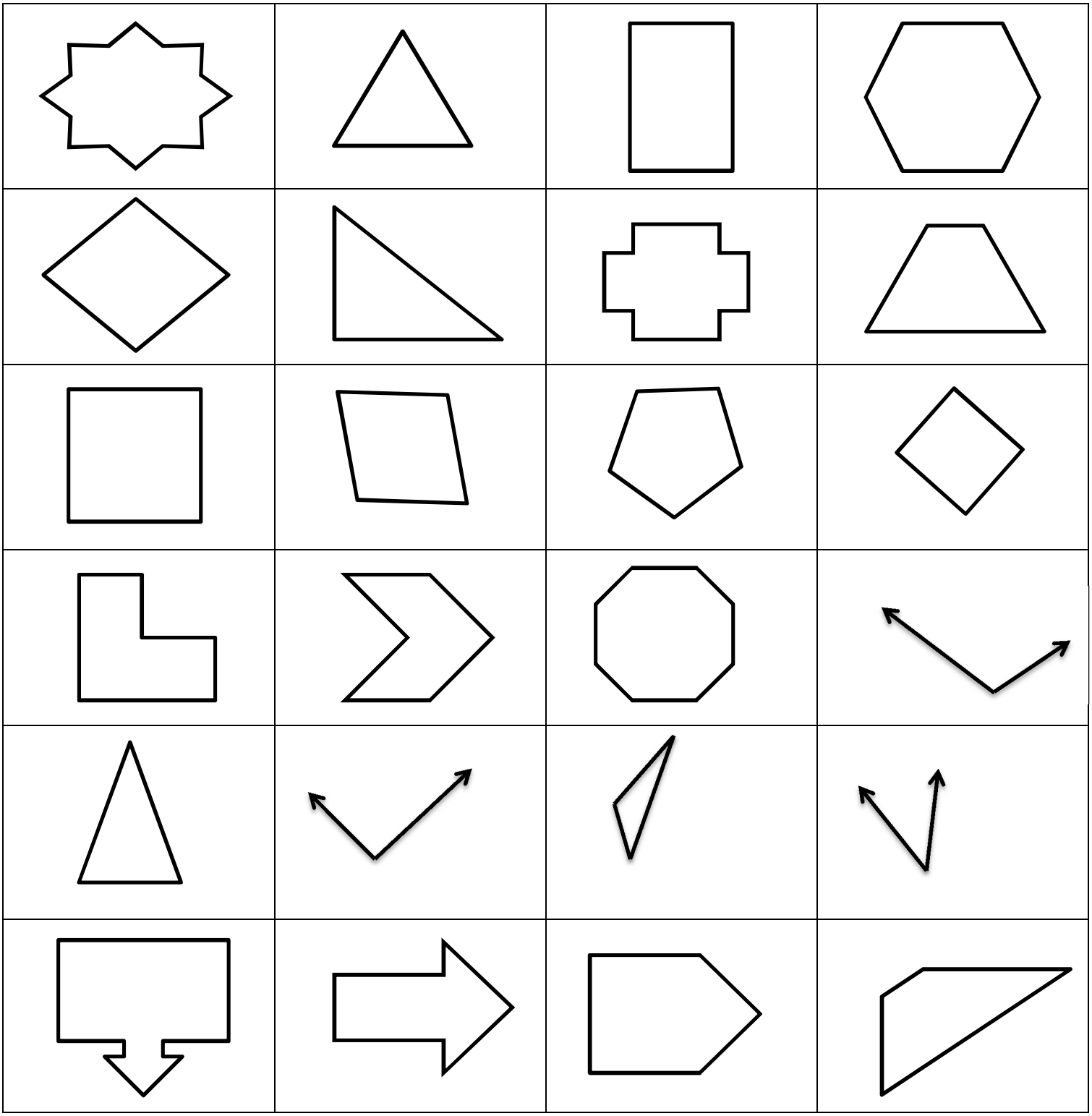


Recording Sheet

What parallel and perpendicular lines do you see in or around your home or neighborhood? Sketch and label your results below.

Shapes

Name_____



Directions: If the angle is a right angle, color it red.

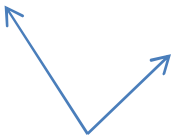
If the angle is an acute angle, color it blue.

If the angle is an obtuse angle, color it yellow.

Name;_____ Date:_____ Homework

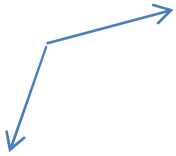
Angles Homework

Classify the angles as acute, obtuse, or right. Explain your reasoning.

1. 

_____

_____

2. 

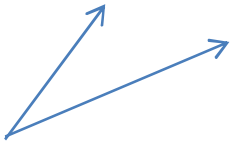
_____

_____

3. 

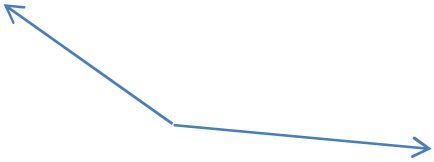
_____

_____

4. 

_____

_____

5. 

_____

_____

6. 

_____

_____

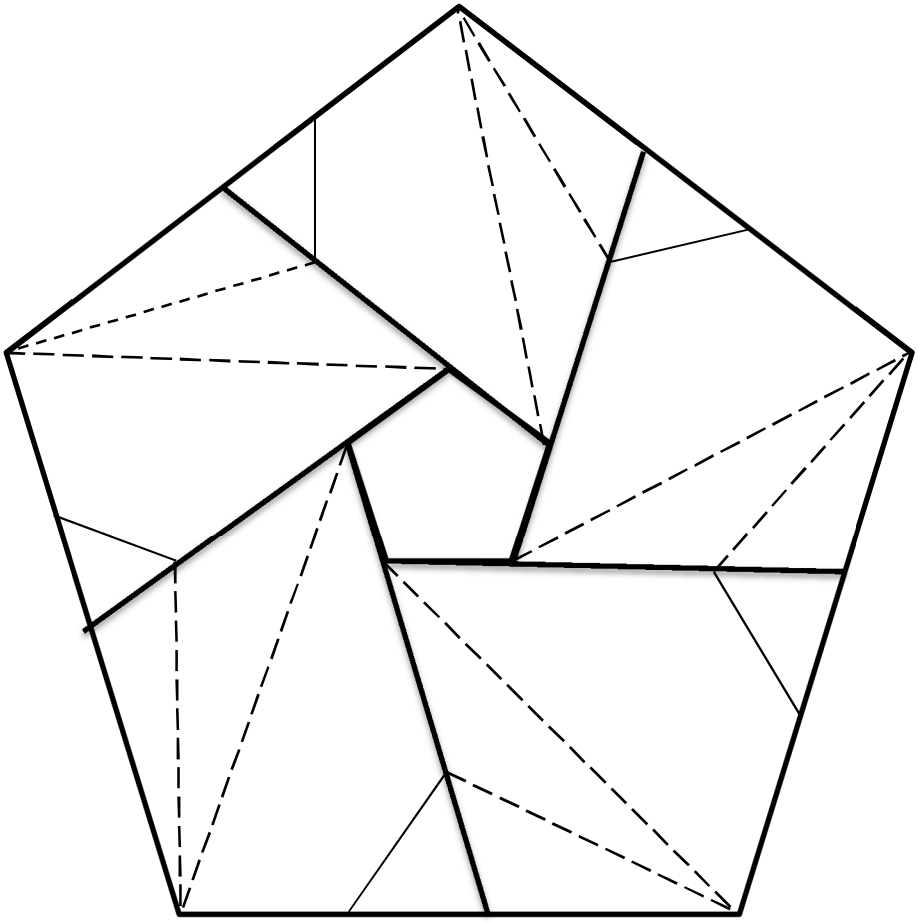
Circle True or False for the following statements.

An obtuse angle is smaller than a right angle.	**True False**
An acute angle is smaller than a right angle.	**True False**
An obtuse angle has only 1 line and 1 point.	**True False**
A right angle can be measured with the corner of a _____	

A continuous straight path that goes on without end in opposite directions.	**An exact location in space represented by a dot.**	**Part of line with two endpoints.**
Part of a line that starts at an endpoint and goes on forever in one direction.	**An angle that measures 90°.**	**An angle that measures greater than 90°.**
An angle that measures less than 90°.	**Two rays that share a common endpoint.**	**Lines that intersect to form right angles.**
Lines that are the same distance apart at all points and do not intersect.		

Name:_____ **Date:**_____

Homework



Directions: Use the figure above to answer the following questions.

1. Color the **acute** angles red. How many acute angles are in the figure? _____
2. Color all the **right** angles blue. How many right angles are in the figure? _____
3. Color the **obtuse** angles yellow. How many obtuse angles are in the figure? _____
4. How many **parallel lines** are in the figure? _____
5. How many **perpendicular lines** are in the figure? _____
6. How many triangles do you see? _____

The Greedy Triangle
Notetaking Guide

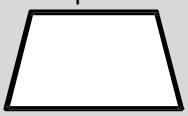
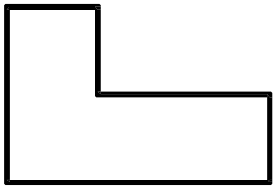
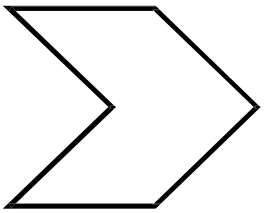
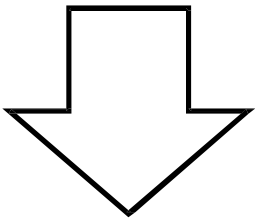
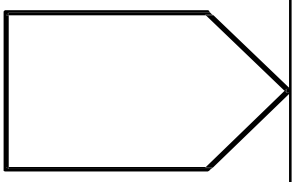
Name

Shape Name	number of sides	number of angles			Sample Drawing
		right	acute	obtuse	

The Greedy Triangle
Homework

Name _____

Directions: Look at each shape, count the number of sides, the number of each type of angle, and if there are parallel or perpendicular sides. Trace parallel sides red. Trace perpendicular lines in blue.

Shape	number of sides	number of angles			Lines	
		right	acute	obtuse	Parallel	Perpendicular
Sample 	4	0	2	2	yes	no
						
						
						
						
						

Name_____ CCSS 4th Grade Lesson 6 Homework

Directions: Decide if each statement is true or false. Justify your answer with a complete sentence. Draw a picture of each underlined word.

1. A line has two endpoints. T F Your Drawing

_____

_____

_____

2. A line segment has one endpoint and

extends without end in one direction. T F

_____

_____

_____

3. A point represents a location in space. T F

_____

_____

_____

4. Parallel lines will always intersect and

meet to form right angles. T F

_____

_____

5. Perpendicular lines are lines that are always

the same distance apart and will never meet. T F

Your Drawing

_____

_____

_____

6. An angle is formed by two rays with a

common endpoint. T F

_____

_____

_____

7. A ray is a closed figure made up of three

or more line segments. T F

_____

_____

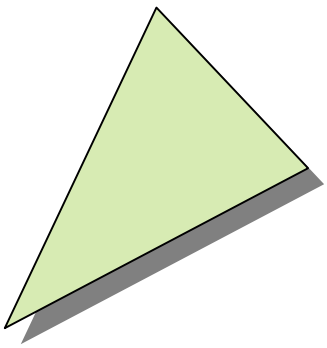
_____

8. Perpendicular lines form an obtuse angle. T F

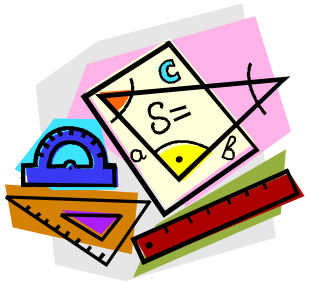
_____

_____

_____



Geometry Performance Task



Your task is to design a map that includes several different kinds of lines, angles, and triangles. Your map can be of a town, your neighborhood, or an imaginary place. It must however include the following:

- Two sets of streets that are parallel.
- Two sets of streets that are perpendicular.
- One street that intersects another street to form an obtuse angle.
- One street that is a line segment.
- One street that is a line.
- One street that is a ray.
- An ice cream parlor made of a four sided shape.
- A pool that must include an acute angle.
- A pizza place with more than five sides.
- A flag pole on a point.
- Your map must also include a compass rose.

Remember to label your map with street and business names.

Once your map is completed, you are to write out two sets of directions from one place to another. Each set of directions must have one of these terms: parallel, intersecting, or perpendicular. These directions should be able to get your teacher and classmates from one place to another without getting lost!

Be prepared to share your map with the class!

Geometry Performance Task Rubric _____ 2 sets of streets that are parallel **(2 points)** 2 sets of streets that are perpendicular **(2 points)** 1 street that intersects another street to form an obtuse angle **(1 point)** 1 street that is a line segment **(1 point)** 1 street that is a line **(1 point)** One street that is a ray **(1 point)** An ice cream parlor made of a 4 sided shape **(2 points)** _____A pool that must include an acute angle **(2 points)** A pizza place with more than 5 sides **(2 points)** _____ A flag pole on a point. **(1 point)** Compass Rose **(1 point)** _____ 2 sets of directions to go from one place to another using the words parallel, intersecting, or perpendicular **(4 points)**	**Geometry Performance Task Rubric** _____ 2 sets of streets that are parallel **(2 points)** 2 sets of streets that are perpendicular **(2 points)** 1 street that intersects another street to form an obtuse angle **(1 point)** 1 street that is a line segment **(1 point)** 1 street that is a line **(1 point)** One street that is a ray **(1 point)** An ice cream parlor made of a 4 sided shape **(2 points)** _____A pool that must include an acute angle **(2 points)** A pizza place with more than 5 sides **(2 points)** _____ A flag pole on a point. **(1 point)** Compass Rose **(1 point)** _____ 2 sets of directions to go from one place to another using the words parallel, intersecting, or perpendicular **(4 points)**
TOTAL:_____ /20 (18-20 points= **5**; 15-17 points= **4**; 12-14 points=**3**; 9-11 points=**2**; 0-8 points=**1**)	**TOTAL**:_____ /20 (18-20 points= **5**; 15-17 points= **4**; 12-14 points=**3**; 9-11 points=**2**; 0-8 points=**1**)

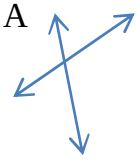
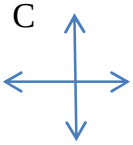
Directions: Answer each question. Some questions may have more than one correct answer.

Post-Assessment

1. Which of these is a line segment?

A  B  C 

2. Which lines below are parallel?

A  B  C 

3. Which polygon has two sets of parallel lines?

A  B  C 

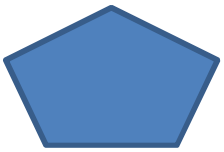
4. How many acute angles are in this polygon?

A 5

B 4

C 3

D 2



5. Draw an obtuse angle:

6. Which shapes have an obtuse angle?

A  B 

C  D 

7. Which of these polygons has only right angles?

A triangle
B rectangle
C square

8. Which of these polygons has NO right angles?

A right triangle
B rectangle
C acute triangle

9. Which shapes have TWO sets of parallel lines?

A triangle
B rectangle
C trapezoid
D parallelogram

10. Alex is teaching Nicolas about triangles. He says the triangle below is an acute triangle. Is he right or wrong? Explain how you know?