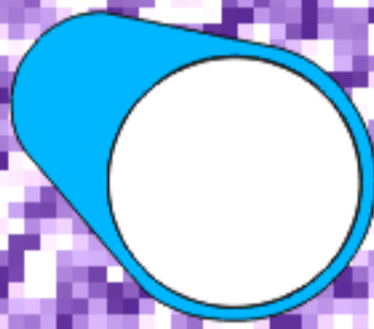
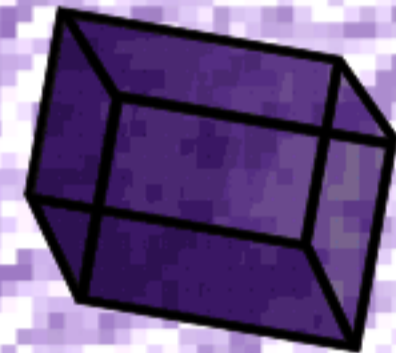
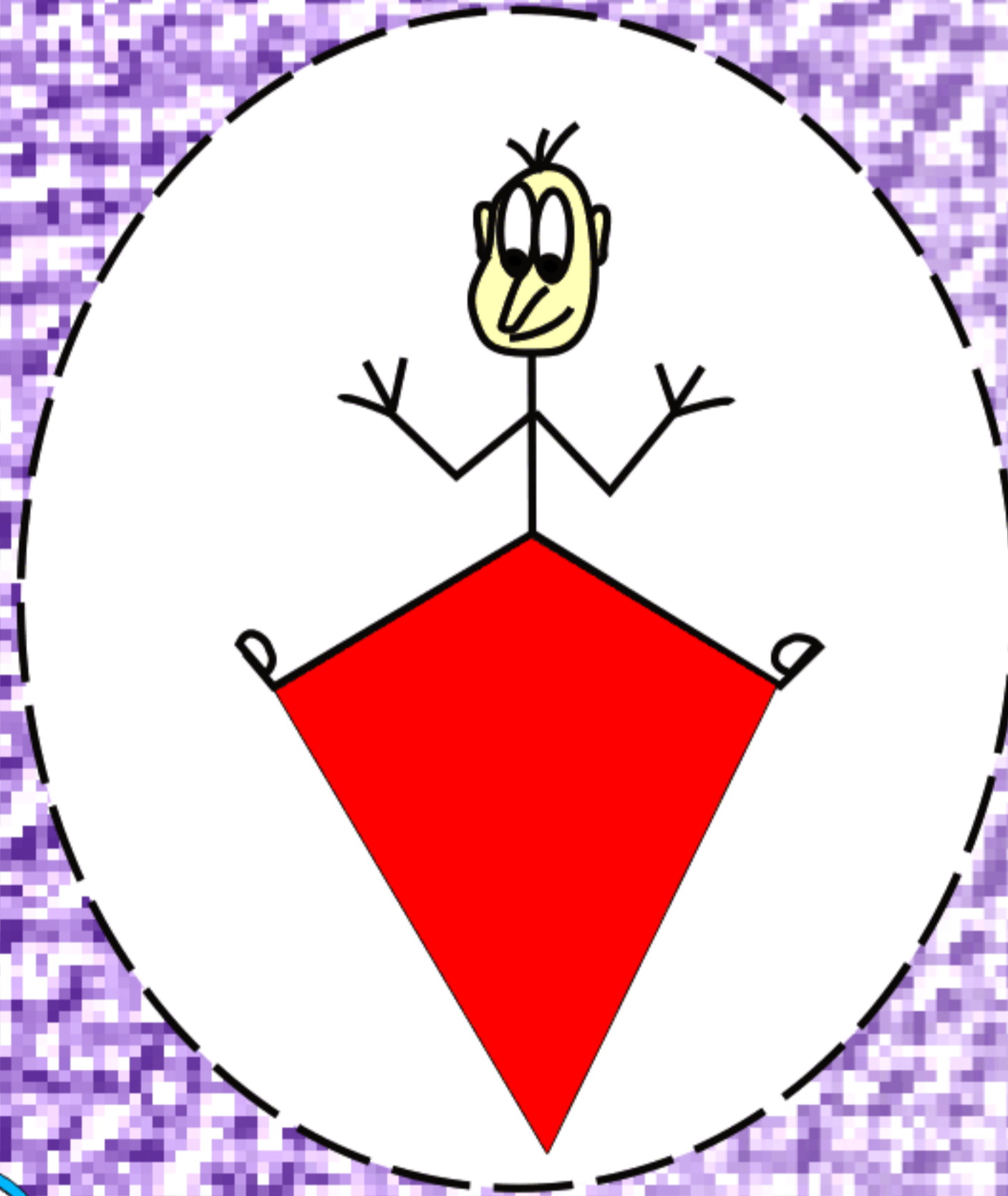
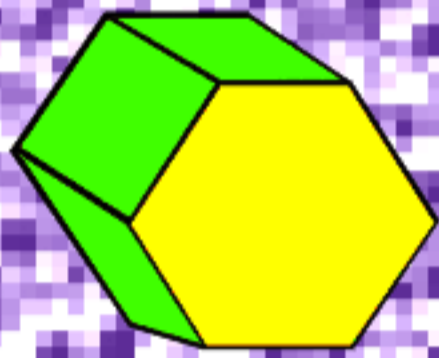


# Geometry

From the *Just Turn & Share*<sup>™</sup> Centers Series

**Kathryn Robinson**



## Real-World Mathematics

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Grades 3 - 5



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5

Just Turn & Share™  
Math Centers Series



# Geometry

Volume 5


(Grades 3 – 5)

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Real-World  
Mathematics  
that  
students  
understand

---

**Kathryn Robinson**

 WriteMath Enterprises  
Valrico, Florida

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- I dedicate this series to my husband, Steve Robinson, for advising, supporting, guiding, and editing years of work and making my dreams possible.
- I would also like to dedicate this series to my brother-in-law, Michael Ghormley, for his expert mathematical advice, patience, and willingness to answer my constant questions over a period of several years.

This book is published by WriteMath Enterprises.

ISBN 0-9703216-9-4

Graphics from: Corel Draw 8 (Corel Corporation) and Microsoft Publisher

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# Introduction

Geometry is a great center in the 'Just Turn & Share' Series. This series gives students **daily** practice in 16 math areas or a math topic of your preference. After gradually working in a center-based atmosphere, students can tackle all 16 centers in half an hour. This program can be used in conjunction with any regular math series. Some students have difficulty attaining proficiency in specific math areas due to the limited practice provided by a textbook. 'Just Turn & Share' math centers provide real-world practice with mathematical concepts.

The series is designed for center-based review of concepts or as whole-group overhead instruction. These lessons are designed to provide practice for 30 weeks of the school year. The program contains three-week sets worth of practice in each concept. Each concept is covered for three weeks before a new concept is introduced to the students. During each three-week period, only the numbers change - not the concepts. The first week is designed as a review of the concept, the second provides further practice, and the third is set apart for mastery of the concept. As your students become more proficient in one particular concept, you might choose to eliminate the third week set to move to a new concept. The third week then serves as a review during the last ten weeks of the year or intensive practice prior to standardized testing.

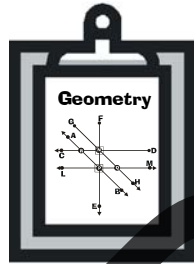
The new concept for the week is listed in the *Table of Contents*. At the onset of a new concept, we recommend that teachers conduct a mini-lesson before releasing students to work the centers. Each center contains concept-information sheets with student-directions about how to perform individual concepts. These information sheets have a third-grade readability level. I recommend that the information sheets remain at the centers as long as possible to accommodate new students entering the class throughout the year. Many weeks in the series contain reference sheets that contain data that students will need to perform certain operations. Both the information sheets and reference sheets are located at the beginning of each week.

This center contains:

1. An information sheet designed to remain at the center. It relates pertinent information about geometric concepts.
2. Daily student question sheets

**Suggestion:**

Each center sheet should be placed in a plastic protective COVER.



Each center is designed for grades 3 through 5 as follows:

- (\*) **Grade 3** students calculate the single asterisk activities
- (\*\*) **Grade 4** students calculate the double asterisk activities
- (\*\*\*) **Grade 5** students calculate the triple asterisk activities

If you are using more than five centers in the classroom, I recommend using the answer sheet to help students keep track of the completed centers. Accompanying each complete set is a set of corrected answer sheets that help students self-correct their responses. Students self-correct their answer sheets three out of the four days. Self-correction prevents embarrassment and allows students time to practice each concept before an assessment. I place a sign-up sheet in the classroom to allow students to sign up for assistance in their less proficient areas. I assist those that have signed up for help during the next day's *Center Time*. The fourth day of each week is teacher-corrected and entered in a grade book. If you have any questions please feel free to e-mail us on our website:

[www.writemath.com](http://www.writemath.com).

I know that you will have as much fun employing this program as I have had designing it. Remember the program is as simple as *turning each page and sharing* the activities with your class. So go ahead just...

**Turn & Share**

with your students.

# Just Turn & Share Answer Sheets

**Front**

<small>Name</small>	<small>Date</small>	<small>Day</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>

**Back**

<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>
<small>Center</small>	<small>Problem</small>	<small>Answer</small>

1. Each sheet is divided into sections according to the names of the centers.  
(*e.g. Time*)
2. Students write the letter for the problem in the smaller box.

<b>A</b>	<b>B</b>
3:00	4:00
<b>C</b>	<b>D</b>
1 hour	News

3. Students write the answer in the larger box.
4. Students check the sheet to determine whether or not they have completed all of the centers.

Name:		Date:		Day #1	Day #2	Day #3	Day #4
Time:		Estimation:		Calendar:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number Sense:		Grid:		Temperature:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place Value:		Volume:		Weight/Mass:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Algebra:		<input type="checkbox"/>		<input type="checkbox"/>			
Graph:		<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>			
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>			

Linear Measure:		Fractions/Decimals:	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geometry:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Money:			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinking:			
<i>range:</i>	<i>median:</i>	<i>mean/average:</i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<i>mode:</i>		
	<input type="checkbox"/>		

SAMPLE

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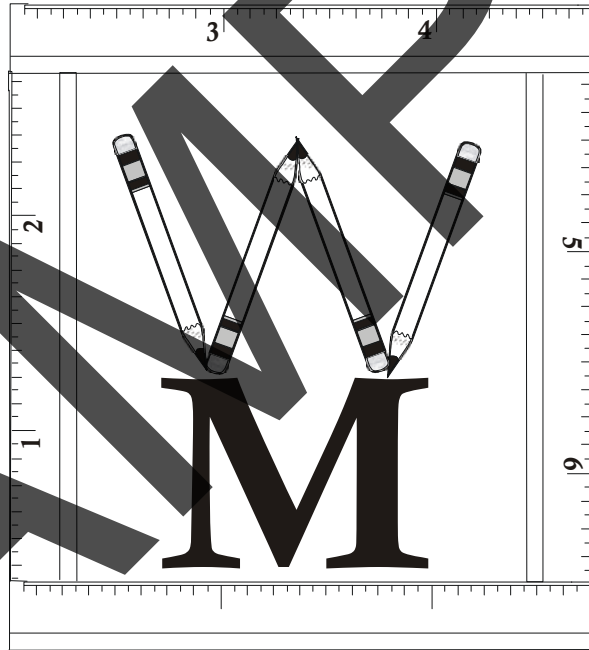
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1. Algebra
2. Calendar
3. Estimation
4. Fractions & Decimals
5. Geometry
6. Graph
7. Grid
8. Linear Measure
9. Money
10. Number Sense
11. Place Value
12. Temperature
13. Thinking: Range, Median, Mode, Mean
14. Time
15. Volume
16. Weight & Mass

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# Line, Line segment, & Ray Information

## Line Segment

A line segment is a straight figure with two endpoints: A & B



This is  $\overline{AB}$

## Line

A line is a line segment that continues on forever at both ends.



This is  $\overleftrightarrow{CD}$

## Ray

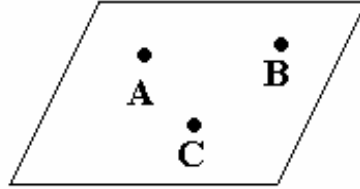
A ray is a part of a line. It continues on forever at only one end.



This is  $\overrightarrow{EF}$

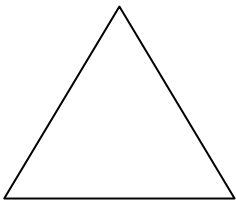
# Plane Figures

A **plane** is a flat surface that goes on in all directions.

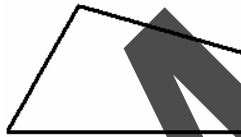


(Imagine a **plane** as a large piece of thin glass.)

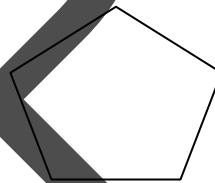
Shapes that are drawn on a plan (flat surface) are called **plane figures**.



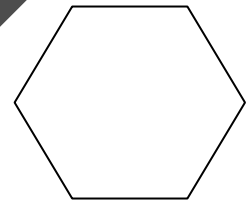
triangle



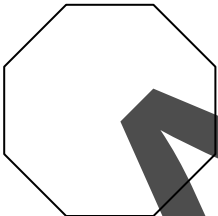
quadrilateral



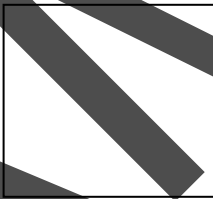
pentagon



hexagon



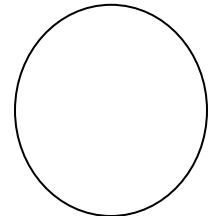
octagon



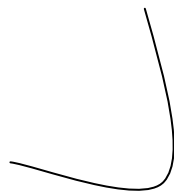
square



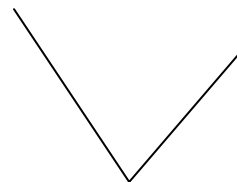
rectangle



circle



curve



angle

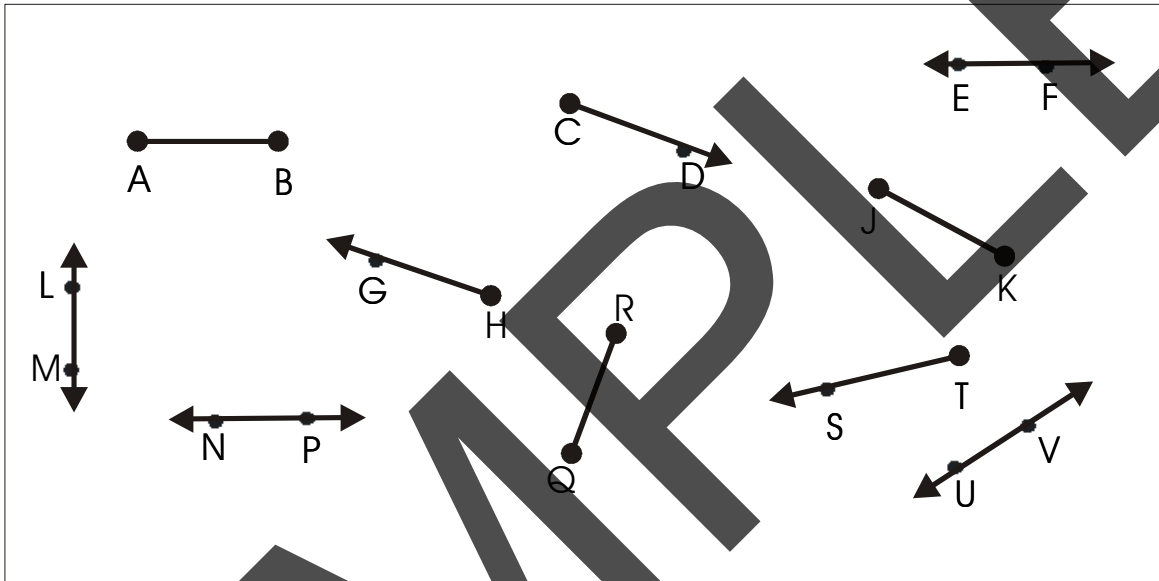
Plane figures can be **open** like the curve and angle or **closed** like the circle.

# Geometry

## (Day #1)

\*\*\* Refer to the Line, Line Segment, & Ray Information.

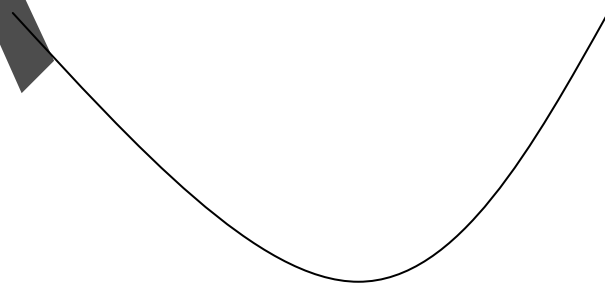
**A.** Name all of the figures below that are line segments:



\*\*\* Refer to Plane Figures Information.

**B.** Name a plane figure that has 5 sides.

**C.** Is the following plane figure open or closed?



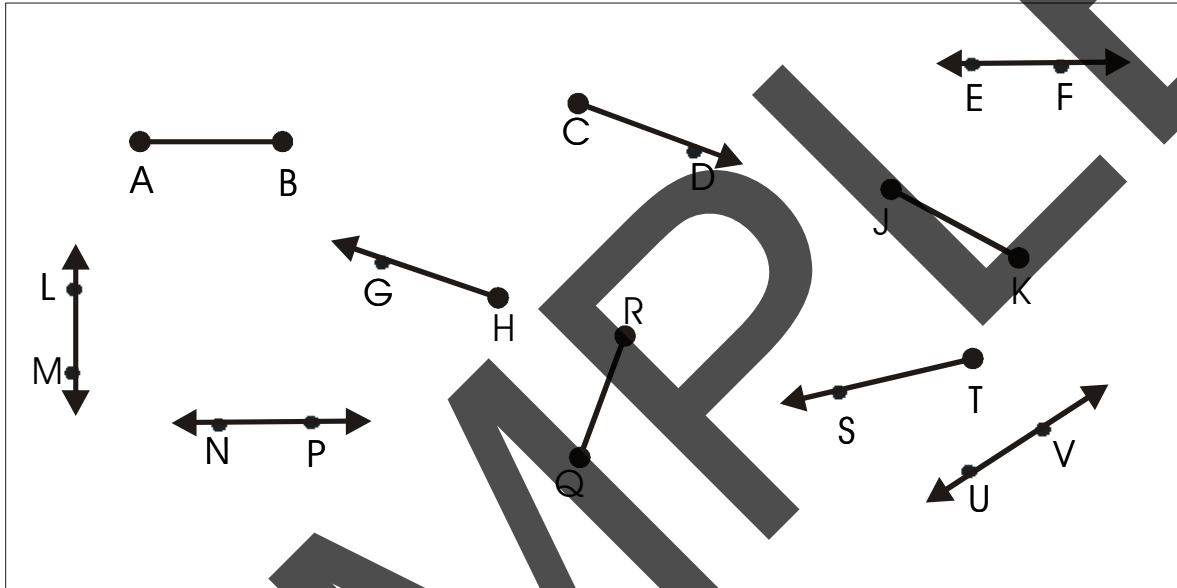
EVERYONE: A, B, & C

# Geometry

## (Day #2)

\*\*\* Refer to the Line, Line Segment, & Ray Information.

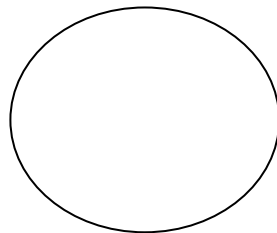
**A.** Name all of the figures below that are lines:



\*\*\* Refer to Plane Figures Information.

**B.** Name a plane figure that has 3 sides.

**C.** Is the following plane figure open or closed?



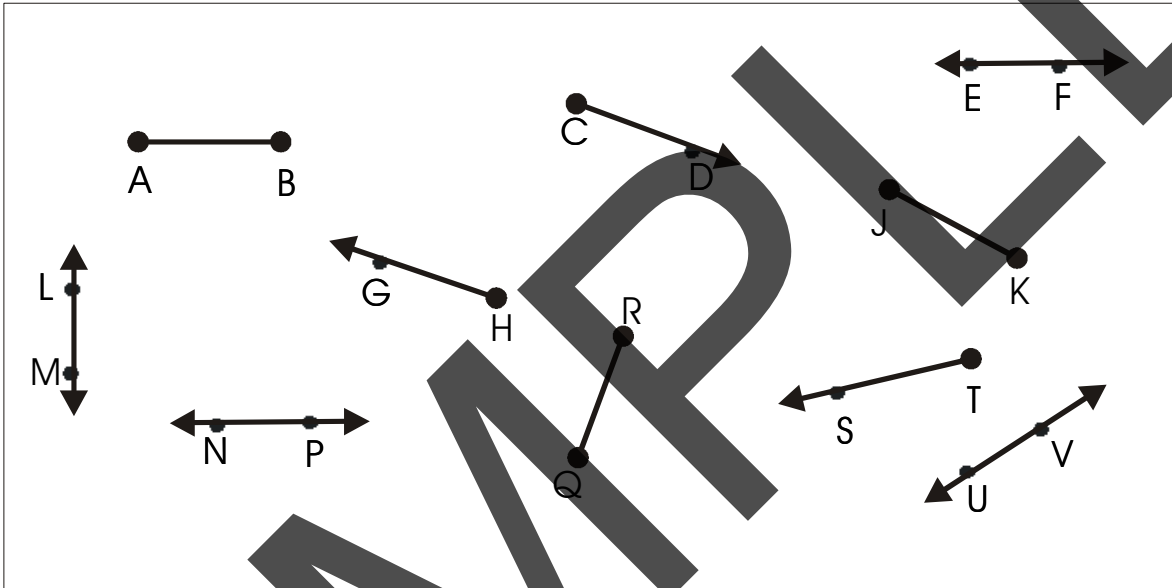
EVERYONE: A, B, & C

# Geometry

## (Day #3)

\*\*\* Refer to the Line, Line Segment, & Ray Information.

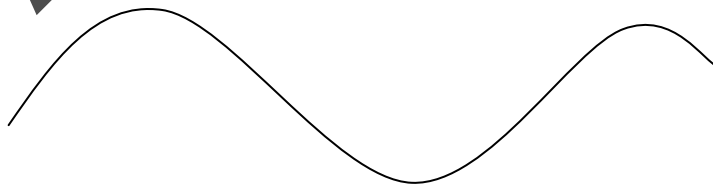
**A.** Name all of the figures below that are rays:



\*\*\* Refer to Plane Figures Information.

**B.** Name a plane figure that has 6 sides.

**C.** Is the following plane figure open or closed?



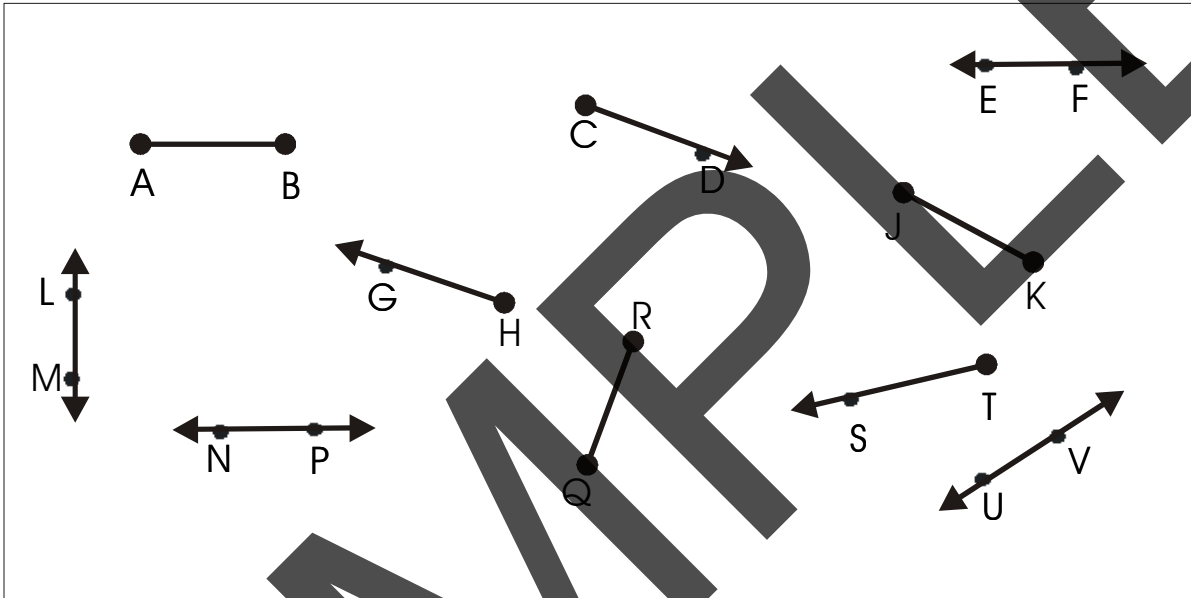
EVERYONE: A, B, & C

# Geometry

## (Day #4)

\*\*\* Refer to the Line, Line Segment, & Ray Information.

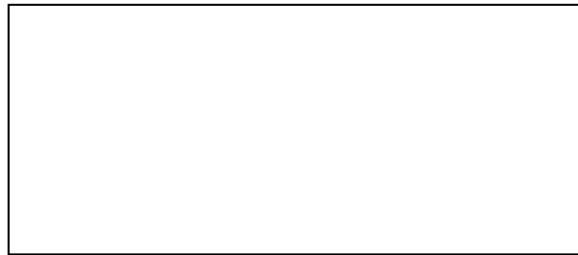
**A.** Name a line segment, a line, and a ray:



\*\*\* Refer to Plane Figures Information.

**B.** Name a plane figure that has 8 sides.

**C.** Is the following plane figure open or closed?



EVERYONE: A, B, & C

# Geometry

## (Day #1)

A figure is named by the points along the figure:

$\overline{AB}$  means **line segment AB**  
 $\overleftrightarrow{CD}$  means **line CD**.  
 $\overrightarrow{EF}$  means **ray EF**.

Line segments and lines are labeled in more than one way:

$\overline{A \quad B}$  is labeled  $\overline{AB}$  or  $\overline{BA}$   
 $\overleftrightarrow{C \quad D}$  is labeled  $\overleftrightarrow{CD}$  or  $\overleftrightarrow{DC}$

**A.** Give two names for the following figure:



**B.** Draw figure:

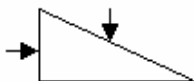


**READ:**

A segment has 2 endpoints.  
 A segment is a side of a figure.  
 When we ask: How many segments are on a figure?

- *We are asking: How many sides does the figure have?*

**C.** How many segments do you see in the following figure?



EVERYONE: A, B, & C

# Geometry

## (Day #2)

A figure is named by the points along the figure:

$\overline{AB}$  means **line segment AB**  
 $\overleftrightarrow{CD}$  means **line CD**.  
 $\overrightarrow{EF}$  means **ray EF**.

Line segments and lines are labeled in more than one way:

$\overline{A \quad B}$  is labeled  $\overline{AB}$  or  $\overline{BA}$   
 $\overleftrightarrow{C \quad D}$  is labeled  $\overleftrightarrow{CD}$  or  $\overleftrightarrow{DC}$

**A.** Give two names for the following figure:



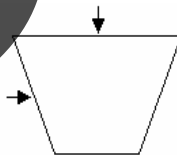
**B.** Draw figure:



**READ:**

A segment has 2 endpoints.  
 A segment is a side of a figure.  
**When we ask:** How many segments are on a figure?  
 • *We are asking:* How many sides does the figure have?

**C.** How many segments do you see in the following figure?



EVERYONE: A, B, & C

# Geometry

## (Day #3)

A figure is named by the points along the figure:

$\overline{AB}$  means **line segment AB**  
 $\overleftrightarrow{CD}$  means **line CD**.  
 $\overrightarrow{EF}$  means **ray EF**.

Line segments and lines are labeled in more than one way:

$\overline{A \quad B}$  is labeled  $\overline{AB}$  or  $\overline{BA}$   
 $\overleftrightarrow{C \quad D}$  is labeled  $\overleftrightarrow{CD}$  or  $\overleftrightarrow{DC}$

**A.** Give two names for the following figure:



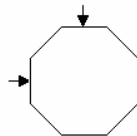
**B.** Draw figure:



**READ:**

A segment has 2 endpoints.  
 A segment is a side of a figure.  
**When we ask:** How many segments are on a figure?  
 • *We are asking:* How many sides does the figure have?

**C.** How many segments do you see in the following figure?



EVERYONE: A, B, & C

# Geometry

## (Day #4)

A figure is named by the points along the figure:

$\overline{AB}$  means **line segment AB**  
 $\overleftrightarrow{CD}$  means **line CD**.  
 $\overrightarrow{EF}$  means **ray EF**.

Line segments and lines are labeled in more than one way:

$\overline{AB}$  is labeled  $\overline{AB}$  or  $\overline{BA}$   
 $\overleftrightarrow{CD}$  is labeled  $\overleftrightarrow{CD}$  or  $\overleftrightarrow{DC}$

**A.** Give two names for the following figure:



**B.** Draw figure:



**READ:**

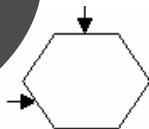
A segment has 2 endpoints.

A segment is a side of a figure.

**When we ask:** How many segments are on a figure?

- We are asking:* How many sides does the figure have?

**C.** How many segments do you see in the following figure?



EVERYONE: A, B, & C