Geometry

(points, lines, segments, etc.)



3 Things you MUST know about geometry:

- The way you **DRAW** the geometric idea
- The way you SAY the idea
- The way you **WRITE** the idea

\*Get any of these off just a bit and you've given the wrong answer.

Let's see what this means.....





← →

Intersecting Lines- Lines that pass through the same point.



Line PE interesects line QC. PE interseects QC.

Perpendicualr lines- Lines that are intersecting, that form a 90° or right angle.



Line RS is perpendicular to line FH. RS FH

\* a Ray must always be writen with the endpoint letter 1<sup>st</sup>, then the continuous end next. All other may be written in either direction.







The figure shows ray *AB* and line segment *CD*. Notice that ray *AB* intersects line segment *CD*.

 $\overrightarrow{AB}$  intersects  $\overrightarrow{CD}$ .



Let's Check it out:

https://www.khanacademy.org/math/geometry/intro\_euclid/v/lines--line-segments--and-rays http://studyjams.scholastic.com/studyjams/jams/math/geometry/types-of-lines.htm

Now you try:

- 1. Name 4 points.
- 2. Name 3 line segments.
- 3. Name 2 intersecting lines
- 4. Name 2 parallel lines.



- **5.** If  $\overrightarrow{PS}$  and  $\overrightarrow{TC}$  are parallel and  $\overrightarrow{PS}$  is perpendicular to  $\overrightarrow{PT}$ , is  $\overrightarrow{TC}$  also perpendicular to  $\overrightarrow{PT}$ ?
- **6.** Do  $\overrightarrow{PS}$  and  $\overrightarrow{SP}$  name the same line?
- **7.** Do  $\overrightarrow{PS}$  and  $\overrightarrow{SP}$  name the same ray? Explain.





Enrichment:

http://www.superteacherworksheets.com/geometry/lines-segments-rays-1\_TWTBW.pdf http://www.sheppardsoftware.com/mathgames/geometry/shapeshoot/line\_shoot.htm http://www.ixl.com/math/grade-3/lines-line-segments-and-rays

http://mrnussbaum.com/lines/

Lesson plans Monday- review Tuesday- Geometry -Lines, Segments, Rays notes Wednesday- Review/ Guided Practice- Geometry Thursday- Independent Practice/ Worksheet – Geometry Friday- Group practice- Geometry Monday- Geometry- Lines, Segments, Rays Assessment

## Geometry (Lines, Segments, Rays, etc)

# Tuesday-

- Basic geometric ideas NOTES. (Also found in text book pg 200)
- <u>https://www.khanacademy.org/math/geometry/intro\_euclid/v/lines--line-segments--and-rays</u> (basic definitions)
- <u>http://studyjams.scholastic.com/studyjams/jams/math/geometry/types-of-lines.htm</u> (song/ visuals)
- <u>http://www.turtlediary.com/grade-3-games/math-games/line-segments.html</u> (definitions/ written form examples)

## Wednesday-

- Review notes/names
- Guided practice on board (also text book 201)
- Guided or Independent practice (text book 201 cont)

## Thursday-

- <u>http://www.superteacherworksheets.com/geometry/lines-segments-rays-1\_TWTBW.pdf</u>
- Or see attached worksheets

## Friday-

- <a href="http://www.sheppardsoftware.com/mathgames/geometry/shapeshoot/line\_shoot.htm">http://www.sheppardsoftware.com/mathgames/geometry/shapeshoot/line\_shoot.htm</a>
- <u>http://www.ixl.com/math/grade-3/lines-line-segments-and-rays</u>
- <u>http://mrnussbaum.com/lines/</u>

## Monday-

• Assessment

# Additional:

• Additional Practice/Enrichment in Envision Kit pgs. 35-37 (see pdf attachment)

# Lines, Line Segments & Rays

- 1. Draw line segment XY
- 2. Draw line AB
- 3. Draw ray EF
- 4. Draw line AD. Then put points B and C on the line.
- 5. Draw line segment VC
- 6. Draw ray LM

Name	Date	Math Practice
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Directions: Find the missing multiples.

5 x (	) = 15	6 x (	) = 12	2 x (	) = 2
4 x (	) = 8	3 x (	) = 30	4 x (	) = 4
2 x (	) = 4	7 x (	) = 14	5 x (	) = 10
3 x (	) = 9	3 x (	) = 21	4 x (	) = 40
6 x (	) = 12	8 x (	) = 40	7 x (	) = 49

Directions: Circle the correct name for the lines and line segments.



# **Lines and Segments Assessment**

\_\_\_\_\_

### **Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_ 1. What geometric figure is shown?
  - a. angle
  - b. line
  - c. ray
  - d. line segment
  - 2. Which of the following is a diagram of  $\overline{XY}$ ?



3. Tomas's map of Lexington shows three streets that are vertical and parallel. The map also showed one street perpendicular to the three parallel streets. Which choice shows the arrangement of the streets Tomas saw on the map?



- a. Line
- a. Line b. ray
- c. point
- d. line segment





- a. parallel lines
- b. quadrilateral

- c. intersecting lines d. perpendicular lines
- 6. Look at the figure below. What two lines are perpendicular?

a. 
$$\overrightarrow{FG}, \overrightarrow{HJ}$$
  
b.  $\overrightarrow{FG}, \overrightarrow{MN}$   
c.  $\overrightarrow{HJ}, \overleftarrow{KL}$   
d.  $\overrightarrow{KL}, \overrightarrow{MN}$ 



7. Which of the following is a diagram of  $\overleftrightarrow{XY}$ ?



### Essay

8. This map shows several roads in the county where Gina lives.



Name a pair of INTERSECTING roads that are NOT perpendicular.

Name a pair of PARALLEL roads.

## Lines and Segments Answer Section

## MULTIPLE CHOICE

1.	ANS:	D	PTS:	1	REF:	Lesson 8-1
2.	ANS:	А	PTS:	1	REF:	Lesson 8-1
3.	ANS:	А	PTS:	1	REF:	Lesson 8-1
4.	ANS:	В	PTS:	1	REF:	Lesson 8-1
5.	ANS:	С	PTS:	1	REF:	Lesson 8-1
6.	ANS:	В	PTS:	1	REF:	Lesson 8-1
7.	ANS:	С	PTS:	1	REF:	Lesson 8-1

### ESSAY

### 8. ANS:

Sample Intersecting Roads: Andes and Smoky Parallel Roads: Andes and Cureton

RUBRIC	
2 points	Both pairs are correct. (For <i>intersecting</i> , count answers as correct if they include Andes plus one other road).
1 point	Only one pair of roads is correct.

PTS: 1 REF: Lesson 8-1