



Name \_\_\_\_\_

## 5<sup>th</sup> Grade Modified Math Remote Learning Packet

### Week 36



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Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

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(Parent Signature)

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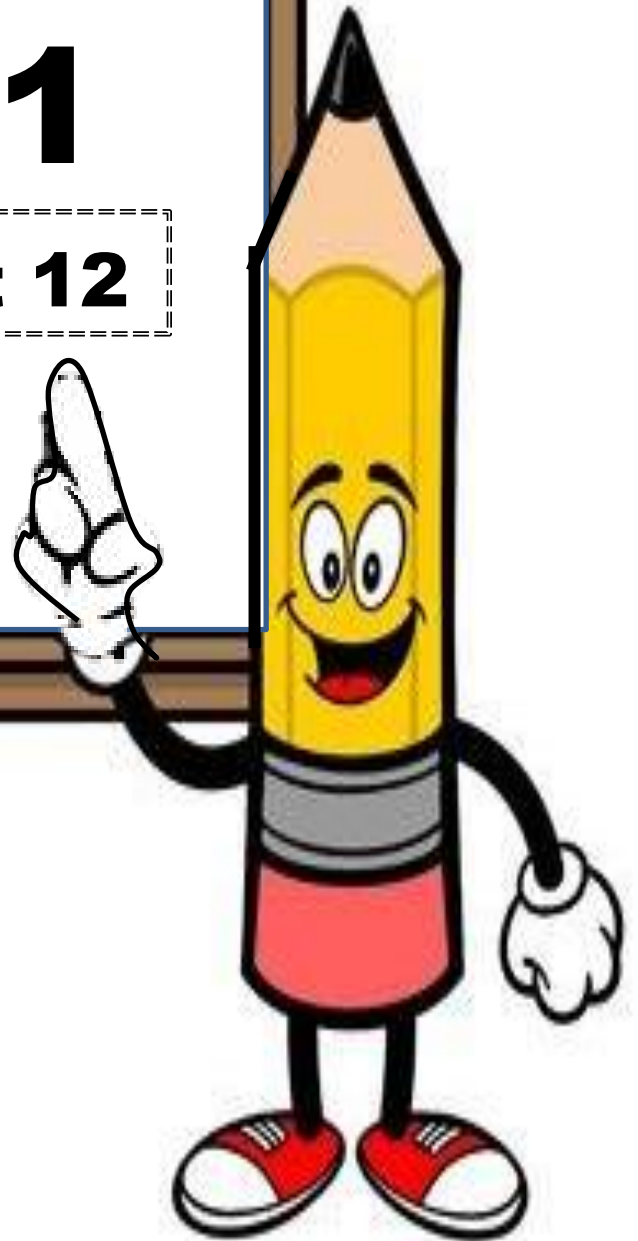
(Date)

Parents please note that all academic packets are also available on our website at [www.brighterchoice.org](http://www.brighterchoice.org) under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.



# Day # 1

**Mod 6 Packet 12**



Name: \_\_\_\_\_ Week 36 Day 1 Date: \_\_\_\_\_

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## Do Now

Complete the tables for the given rules.

Line  $\ell$

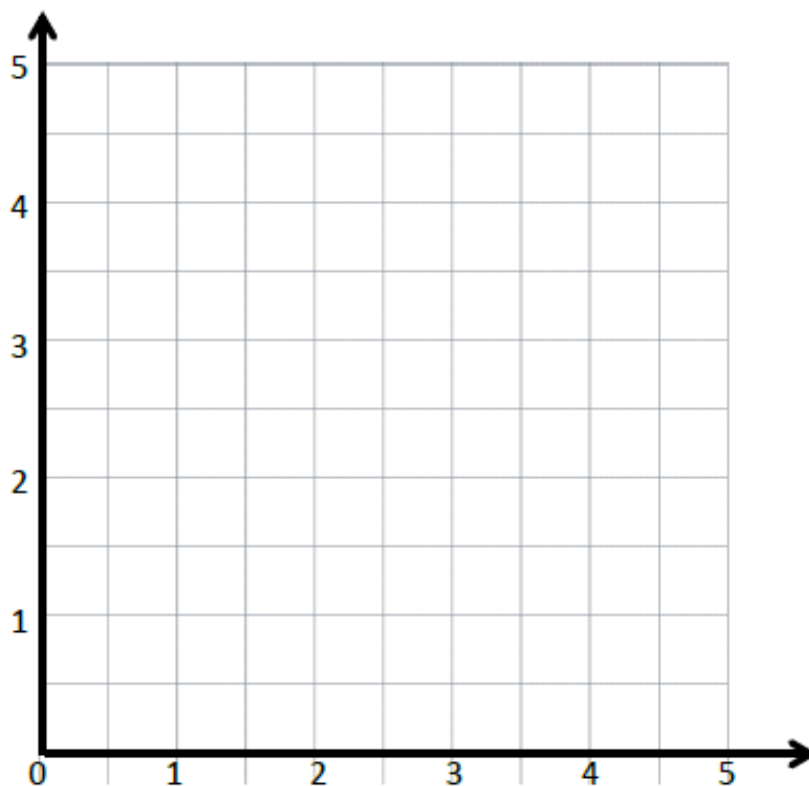
Rule: *Halve  $x$ , and then add 1*

$x$	$y$	$(x, y)$
0		
1		
2		
3		

Line  $m$

Rule: *Halve  $x$ , and then add . 2*

$x$	$y$	$(x, y)$
0		
1		
2		
3		



- a. Draw each line on the coordinate plane above.
- b. Compare and contrast these lines.

# Input Activity:

## Problem 1:

Line *l*

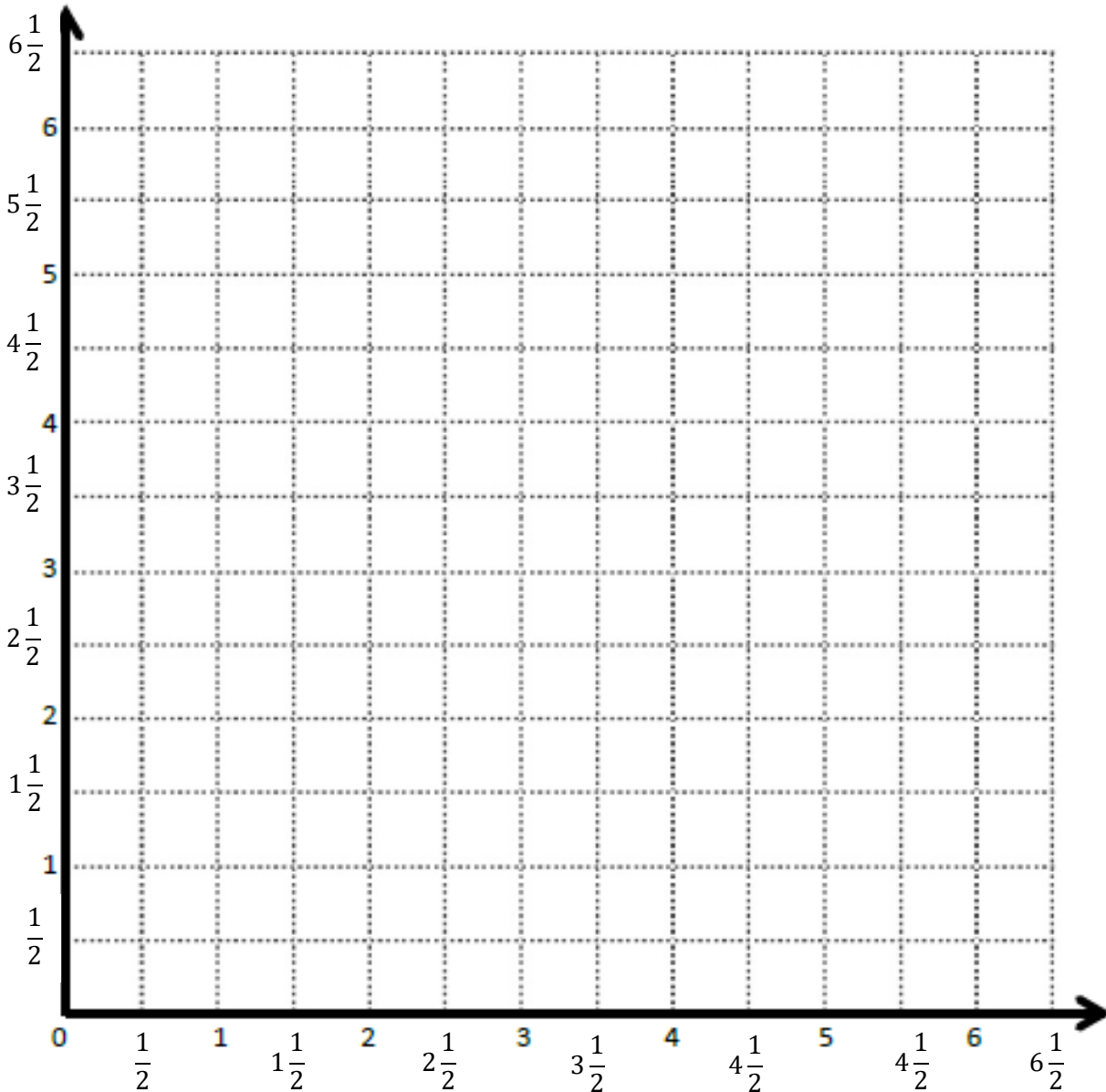
Line *m*

Rule: \_\_\_\_\_

Rule: \_\_\_\_\_

Point	<i>x</i>	<i>y</i>	( <i>x</i> , <i>y</i> )
<i>A</i>	$1\frac{1}{2}$	3	$(1\frac{1}{2}, 3)$
<i>B</i>			
<i>C</i>			
<i>D</i>			

Point	<i>x</i>	<i>y</i>	( <i>x</i> , <i>y</i> )
<i>A</i>			
<i>E</i>			
<i>F</i>			
<i>G</i>			



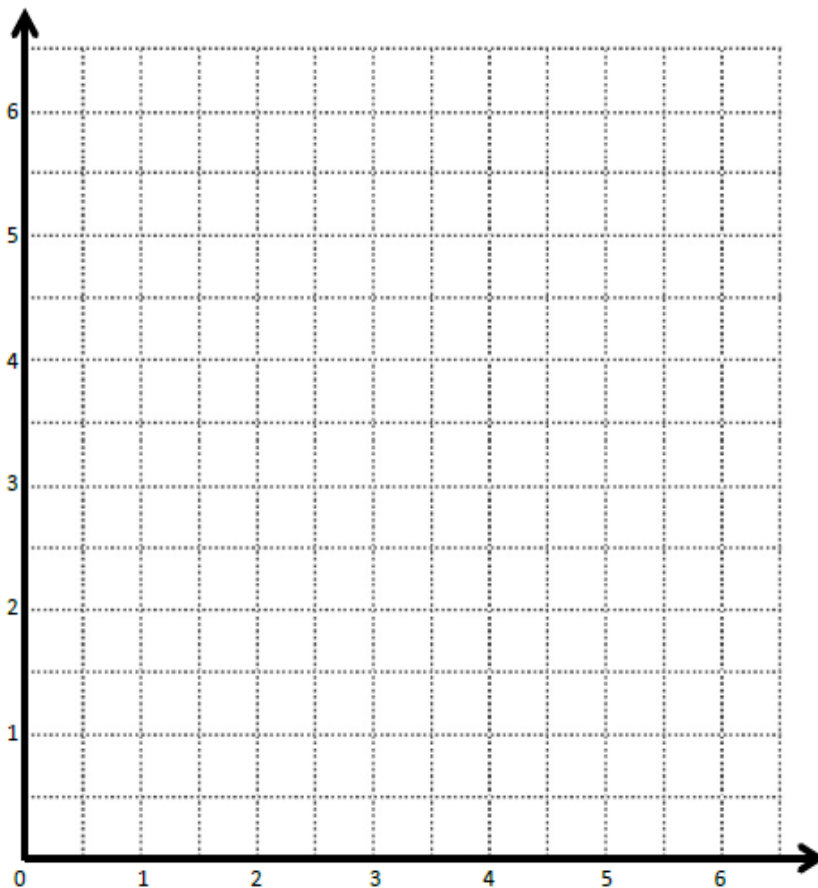
## Problem 2:

Create a mixed operation rule for the line that contains the points  $(0, 1)$  and  $(1, 3)$ .

- a. Identify 2 more points,  $O$  and  $P$ , on this line. Draw the line on the grid.

Point	$x$	$y$	$(x, y)$
$O$			
$P$			

- b. Write a rule for a line that is parallel to  $\overrightarrow{OP}$  and goes through point  $(1, 2\frac{1}{2})$ .



### Problem 3:

Write a rule for the line that contains the points  $(0, 0)$  and  $(2, 2)$

- a. Identify 2 more points on this line. Draw the line on the grid below.

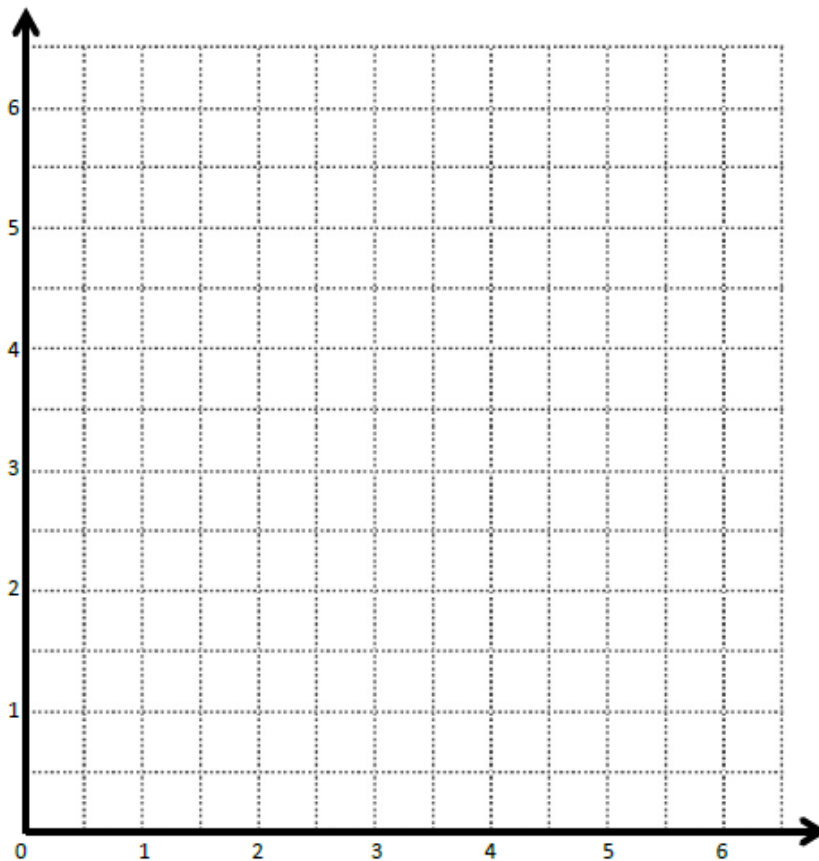
Point	$x$	$y$	$(x, y)$
$B$			
$C$			

- b. Write a rule for a line that is parallel to  $\overrightarrow{BC}$  and goes through point  $(1, \frac{1}{2})$

Create a rule for the line that contains the points  $(1, 1\frac{1}{2})$  and  $(2, 2\frac{1}{2})$

- a. Identify 2 more points on this line. Draw the line on the grid on the right.

Point	$x$	$y$	$(x, y)$
$G$			
$H$			



- b. Write a rule for a line that passes through the origin and lies between  $\overrightarrow{BC}$  and  $\overrightarrow{GH}$ .

## Problem Set:

Give the rule for a line that contains the point  $\frac{1}{2}, 1\frac{1}{2}$  using the operation or description below. Then, name 2 other points that would fall on each line.

a. Addition: \_\_\_\_\_

Point	$x$	$y$	$(x, y)$
$T$			
$U$			

b. A line parallel to the  $x$ -axis: \_\_\_\_\_

Point	$x$	$y$	$(x, y)$
$G$			
$H$			

c. Multiplication: \_\_\_\_\_

Point	$x$	$y$	$(x, y)$
$A$			
$B$			

d. A line parallel to the  $y$ -axis: \_\_\_\_\_

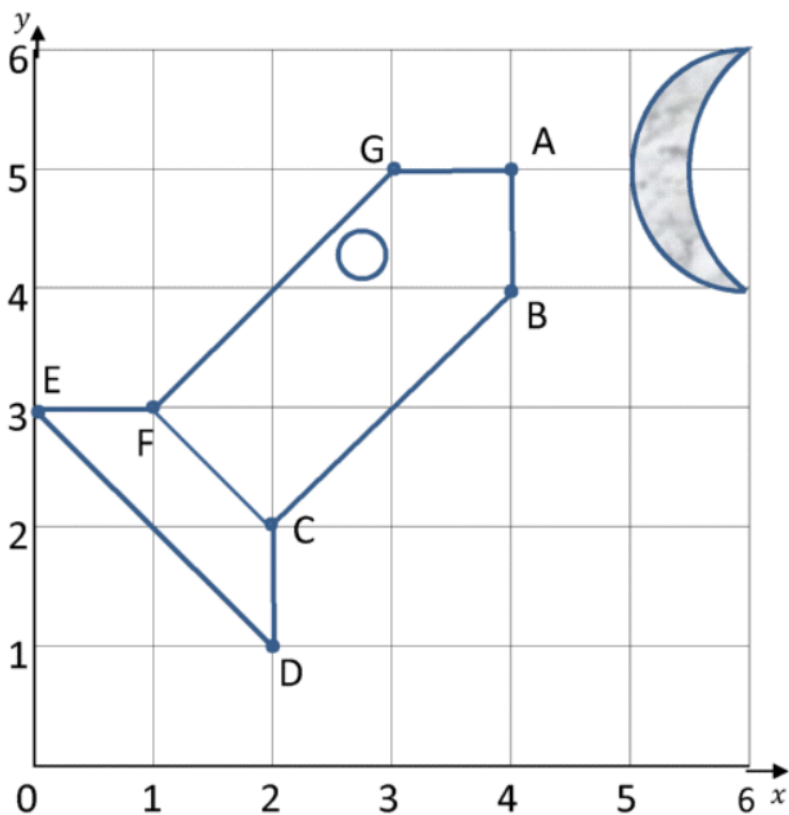
Point	$x$	$y$	$(x, y)$
$V$			
$W$			

e. Multiplication with addition: \_\_\_\_\_

Point	$x$	$y$	$(x, y)$
$R$			
$S$			

### Application Problem:

Andrew drew the following rocket on the grid below. He handed the grid to you, his partner, to write the coordinates for each point of Andrew's rocket. Using the rocket grid, write down the coordinates of each point.



1) Write down the coordinates of this rocket.

A ( \_\_, \_\_ )

B ( \_\_, \_\_ )

C ( \_\_, \_\_ )

D ( \_\_, \_\_ )

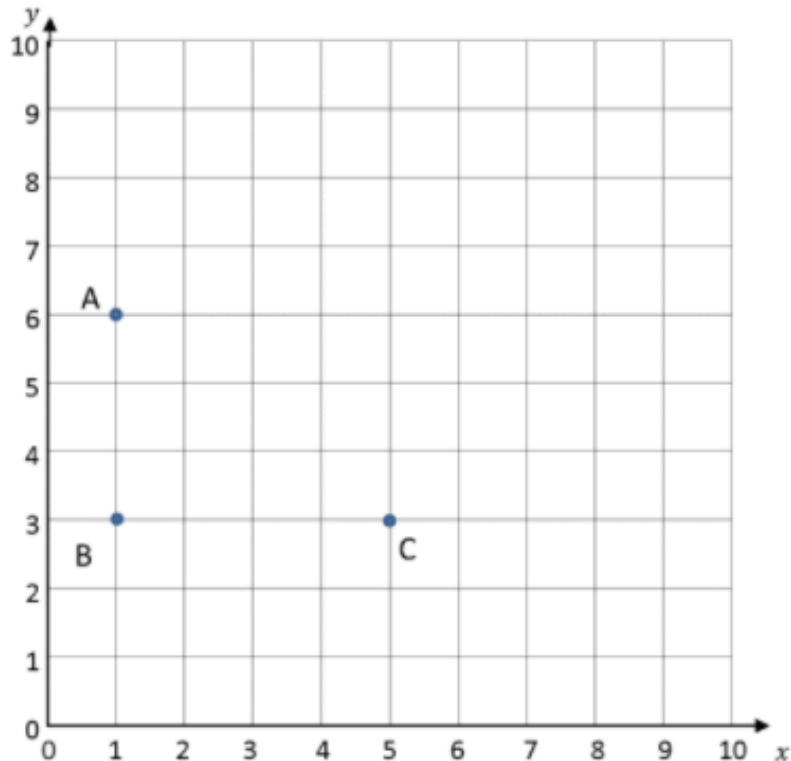
E ( \_\_, \_\_ )

F ( \_\_, \_\_ )

G ( \_\_, \_\_ )



## Exit Ticket:



1) What are the coordinates of points A, B and C?

A ( \_\_, \_\_ )      B ( \_\_, \_\_ )      C ( \_\_, \_\_ )

2) Plot point D so that the four points make a rectangle.

3) What are the coordinates of point D? ( \_\_, \_\_ )

4) On the same coordinate grid, plot these coordinates:

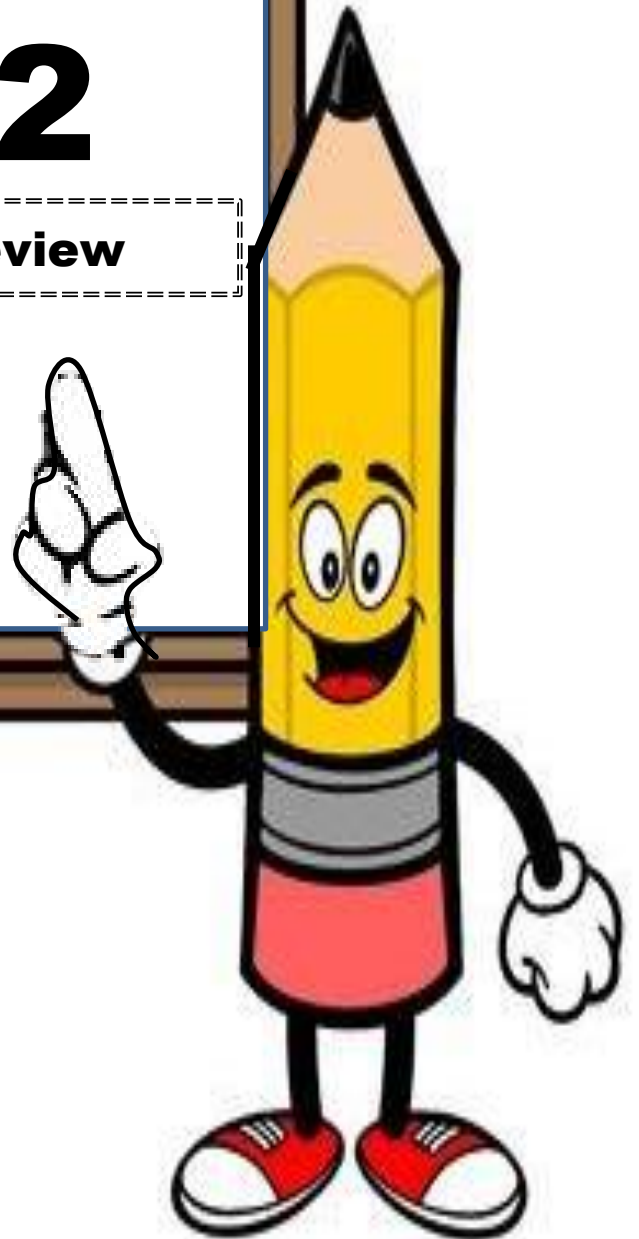
E (7,6)      F (7,8)      G (9,8)      H (9,6)

5) Join the coordinates together. What shape do they make? \_\_\_\_\_



# Day # 2

**Mod 6 Mid-Mod SPA Review**



Name: \_\_\_\_\_ Week 36 Day 2 Date: \_\_\_\_\_

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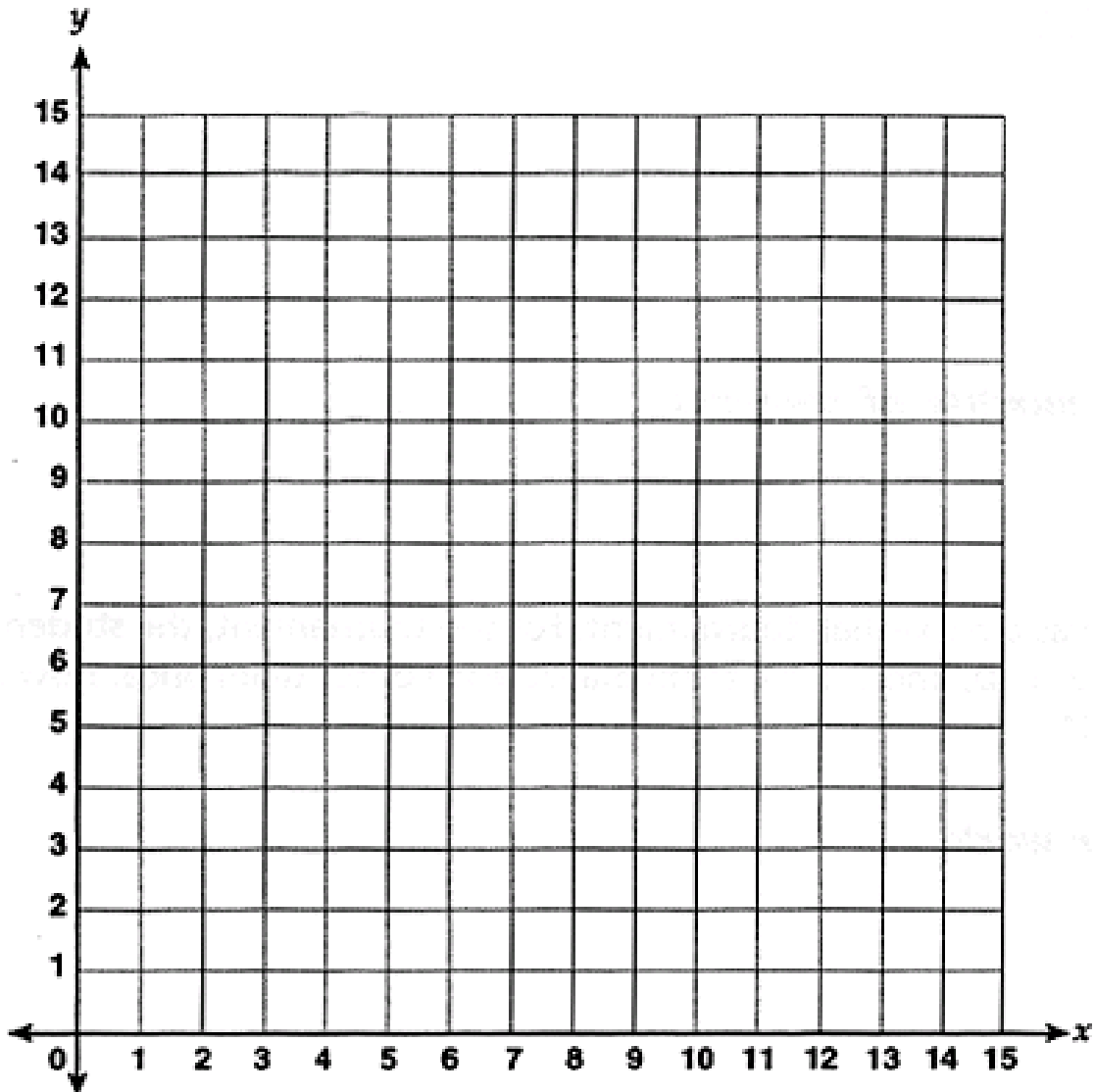
## Do Now

*Line g Rule:* y is x tripled

x	y	(x, y)
1		
2		
5		
7		

*Line h Rule:* y is x divided by 3

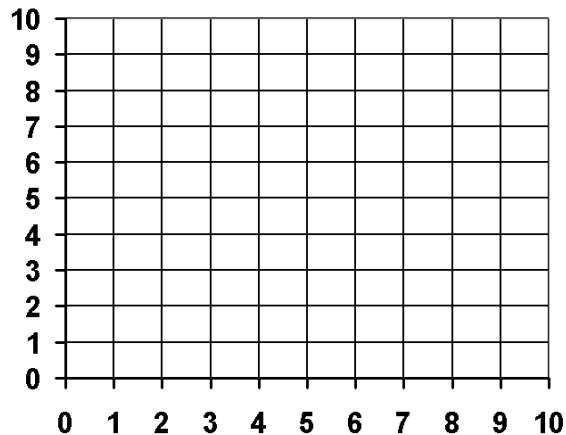
x	y	(x, y)
3		
6		
12		
15		



## Application Problem:

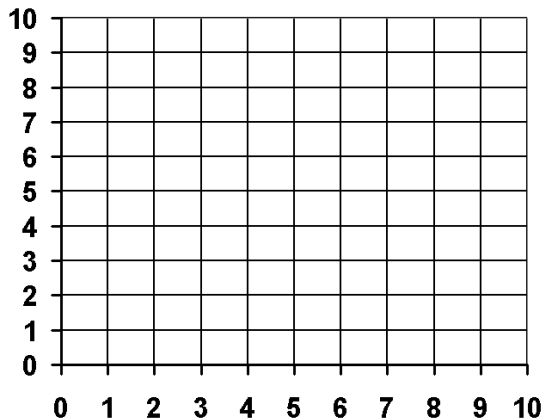
Frankie and Ricky are playing Battleship. They labeled their axes using just whole numbers.

a. Frankie's first guess is  $(2, 2)$ . Ricky says, "Hit!" Give the coordinates of four points that Frankie might guess next.



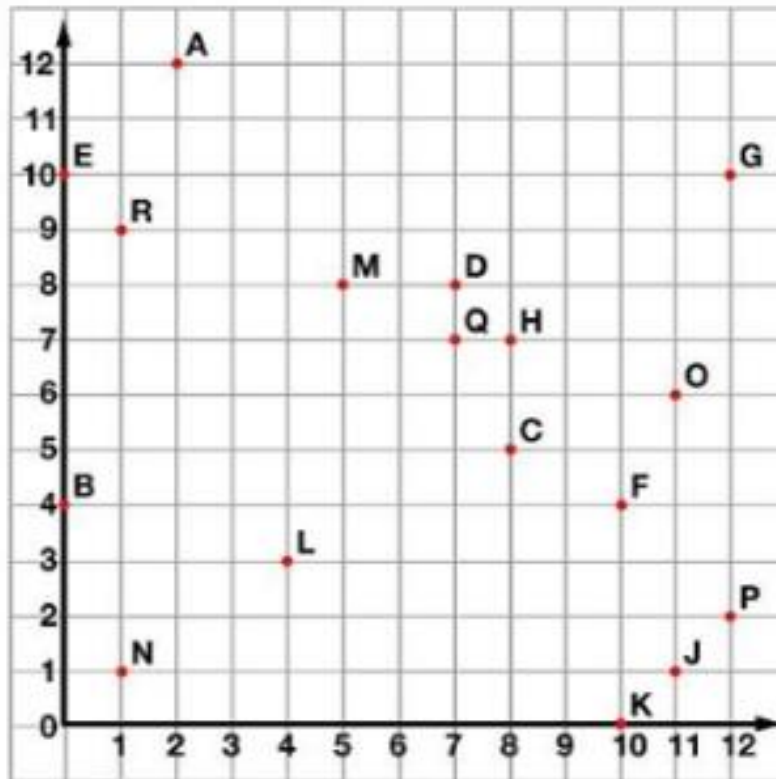
(   ,   )   (   ,   )   (   ,   )   (   ,   )

b. Ricky says, "Hit!" for the points directly above and below  $(2, 2)$ . What are the coordinates that Frankie guessed?



(   ,   )   (   ,   )   (   ,   )   (   ,   )

## Problem 1:



Tell what point is located at each ordered pair.

- |                  |                 |                 |
|------------------|-----------------|-----------------|
| 1. (5,8) _____   | 2. (12,2) _____ | 3. (8,7) _____  |
| 4. (12,10) _____ | 5. (7,7) _____  | 6. (0,10) _____ |

Write the ordered pair for each given point.

- |             |             |             |
|-------------|-------------|-------------|
| 7. N _____  | 8. L _____  | 9. J _____  |
| 10. A _____ | 11. B _____ | 12. E _____ |

Plot the following points on the coordinate grid.

- |              |             |              |
|--------------|-------------|--------------|
| 13. S (6,11) | 14. T (3,5) | 15. U (9,12) |
|--------------|-------------|--------------|

## Problem 2:

Complete the table for the given rules.

Line *a*

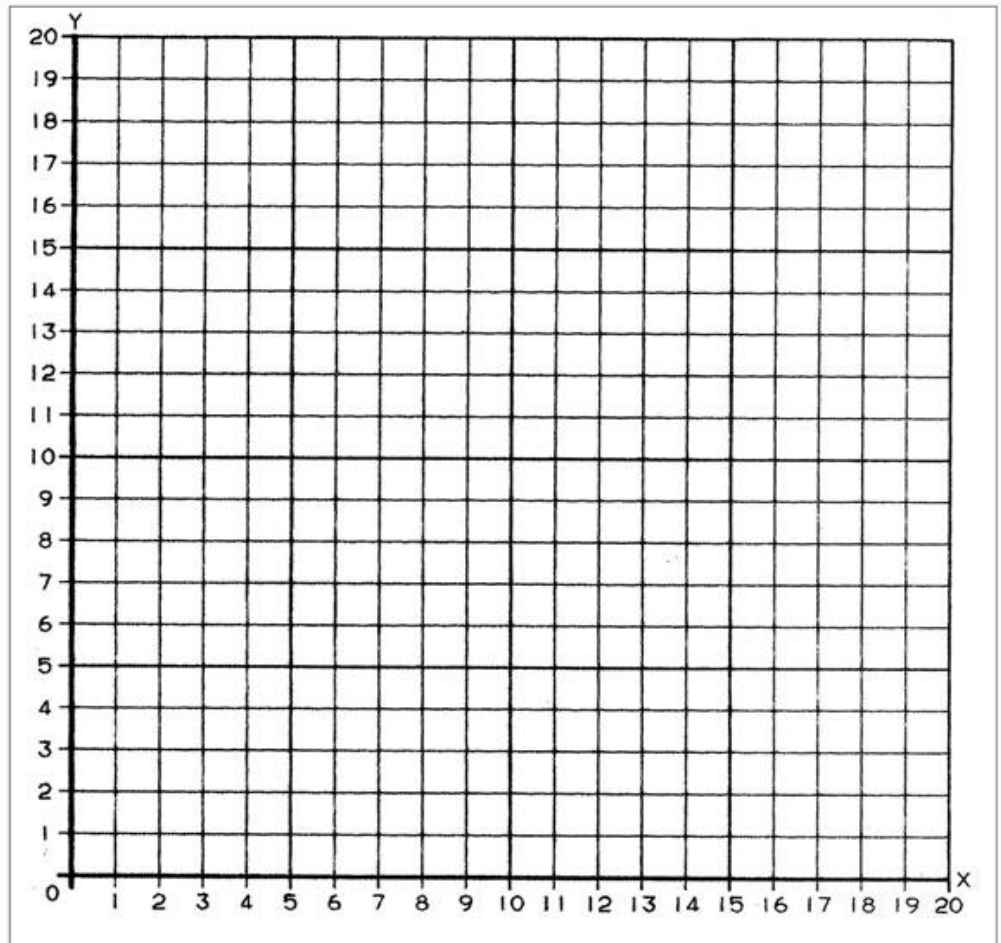
Rule: *y* is 1 less than *x*

<i>x</i>	<i>y</i>	( <i>x</i> , <i>y</i> )
1		
4		
9		
16		

Line *b*

Rule: *y* is 5 less than *x*

<i>x</i>	<i>y</i>	( <i>x</i> , <i>y</i> )
5		
8		
14		
20		



- Construct each line on the coordinate plane.
- Compare and contrast these lines.

# Problem 3:

Line *p*

Line *b*

Line *c*

Line *d*

*Rule:*  $y$  is the same as  $x$

*Rule:*  $y$  is 4 less than  $x$

*Rule:*  $y$  is  $x$  times 2

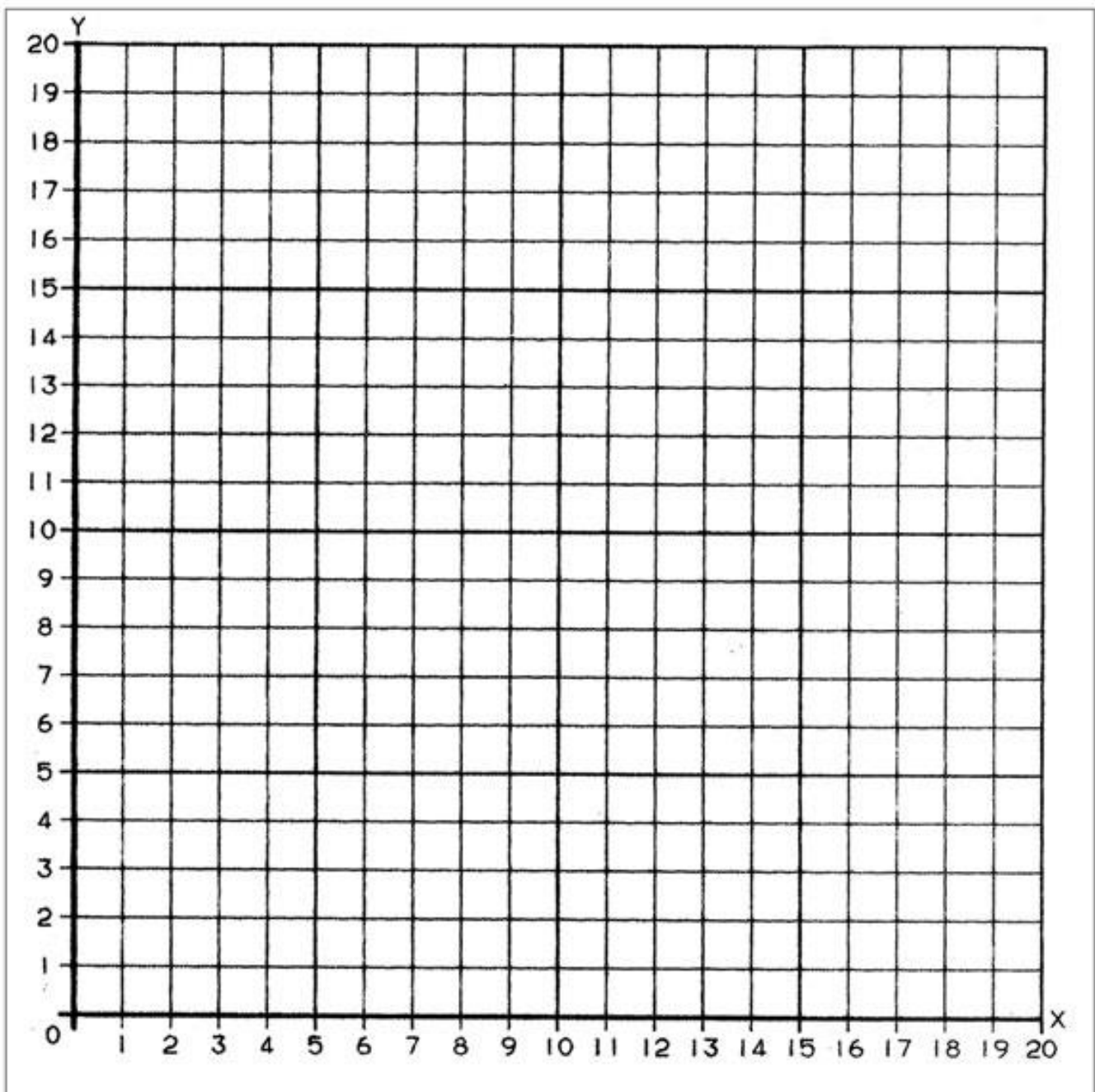
*Rule:*  $y$  is 3 more than  $x$

$x$	$y$	$(x, y)$
0		
5		
10		
15		

$x$	$y$	$(x, y)$
7		
10		
13		
18		

$x$	$y$	$(x, y)$
2		
4		
8		
11		

$x$	$y$	$(x, y)$
5		
7		
12		
15		



### Problem 4:

Finish filling out the chart. Write the rule for the following charts:

	$x$	$y$	$(x, y)$
<i>A</i>	3	3	
<i>B</i>	6	6	
<i>C</i>	8	8	

Rule \_\_\_\_\_

	$x$	$y$	$(x, y)$
<i>G</i>	4	5	
<i>H</i>	1	2	
<i>I</i>	8	9	

Rule \_\_\_\_\_

	$x$	$y$	$(x, y)$
<i>S</i>	2	4	
<i>T</i>	3 <sub>3</sub>	6 <sub>3</sub>	
<i>U</i>	5	8 <sub>3</sub>	

Rule \_\_\_\_\_



### Problem 5:

Find the  $y$ -coordinates by following the rules given for each table.

**Table A:** Multiply by  $\frac{1}{2}$ .

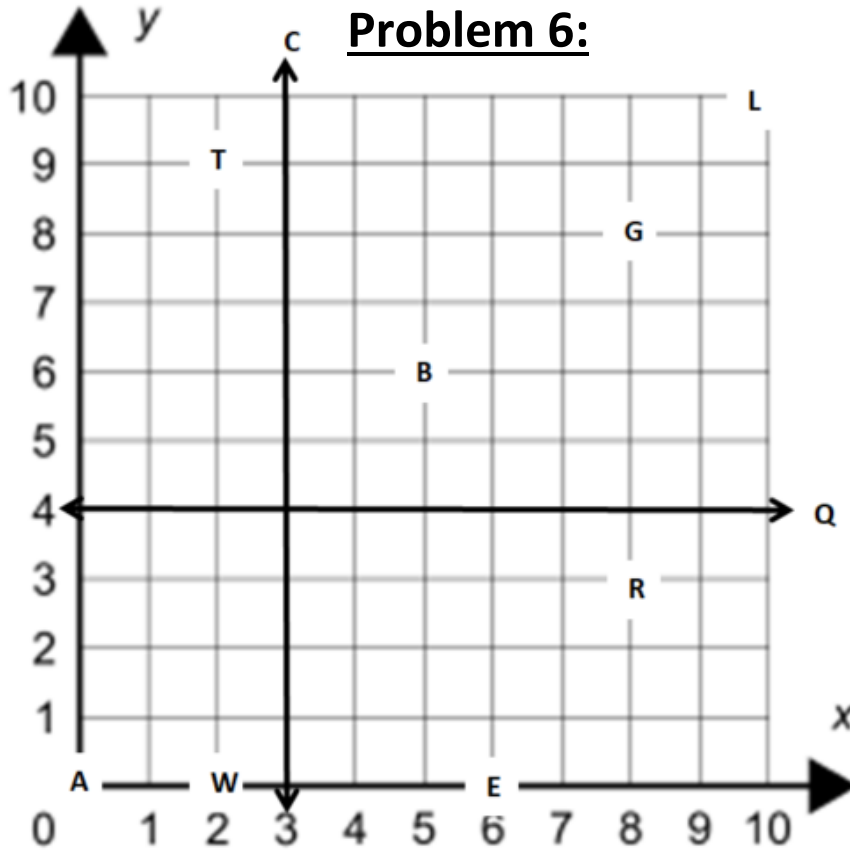
$x$	$y$
4	
5	
6	
7	

### Problem 6:

Find the  $y$ -coordinates by following the rules given for each table.

**Table B:** Multiply by  $\frac{1}{4}$ .

$x$	$y$
5	
4	
3	
2	

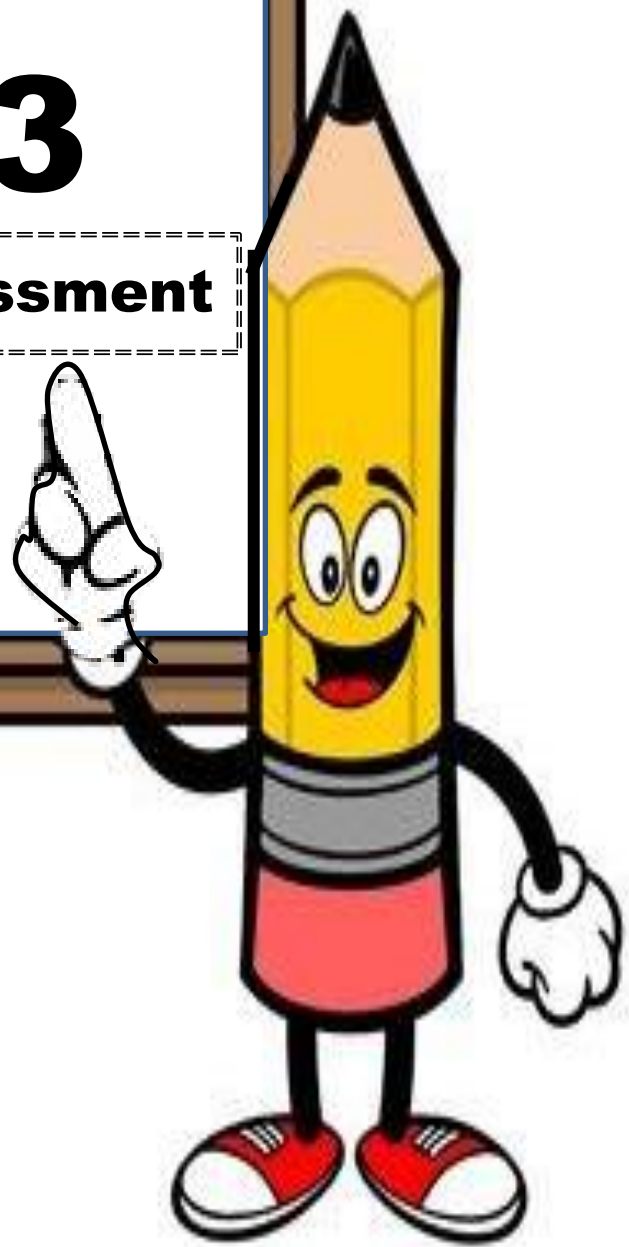


1. Which two points have the same x-axis? What is it? \_\_\_\_\_
2. Which two points have the same y-axis? What is it? \_\_\_\_\_
3. Line Q is \_\_\_\_\_ to the x-axis and \_\_\_\_\_ to the y-axis.
4. Line C is \_\_\_\_\_ to the y-axis and \_\_\_\_\_ to the x-axis.
5. Which point is located at the origin? \_\_\_\_\_
6. Which point is at (5, 6)? \_\_\_\_\_
7. What is the coordinate for point T? \_\_\_\_\_
8. Which point is located at (10, 10)? \_\_\_\_\_



# Day # 3

**Mid-Mod 6 SPA Assessment**



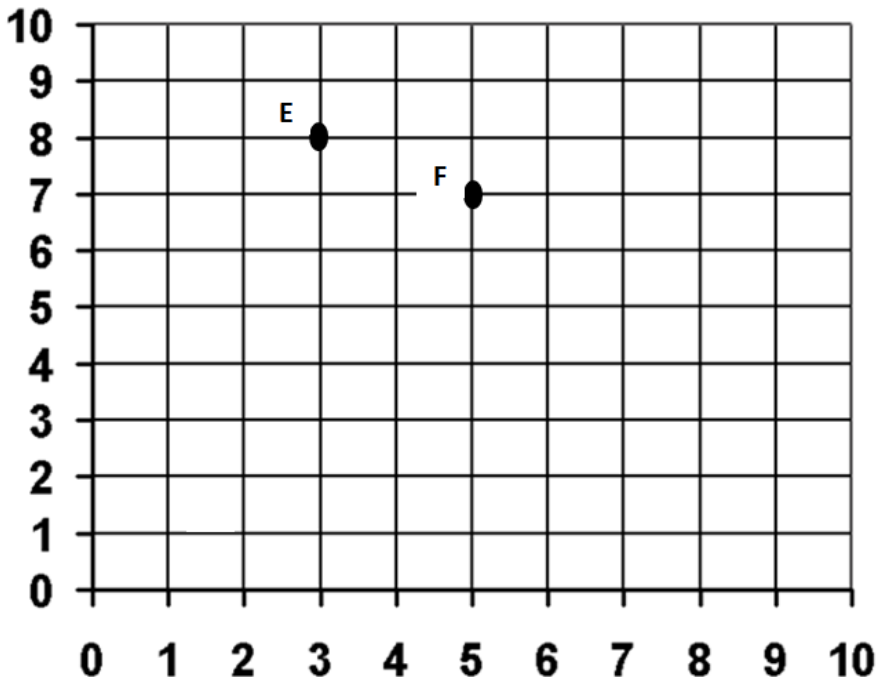
Name: \_\_\_\_\_ Week 36 Day 3 Date: \_\_\_\_\_

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**Mid-Module 6 SPA Assessment:**

Use the coordinate plane to answer questions 1 and 2.



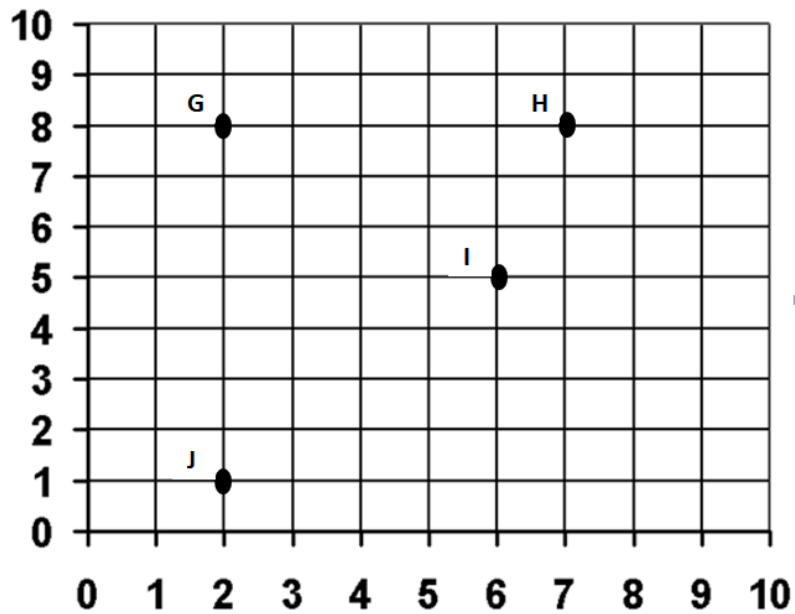
\_\_\_\_ 1. Which statement is true about point E? (5.G.1)

- A. The x-coordinate is 8
- B. The y-coordinate is 3
- C. The ordered pair is (8,3)
- D. The ordered pair is (3,8)

\_\_\_\_ 2. Which statement is false about point F? (5.G.1)

- A. The y-coordinate is 7
- B. The x-coordinate is 5
- C. The x and y coordinates are the same
- D. The ordered pair is (5,7)

Use the coordinate plane to answer questions 3-5.



\_\_\_\_\_ 3. Which is the location of point I? (5.G.1)

- A. (4, 6)
- B. (5, 6)
- C. (6, 4)
- D. (6, 5)

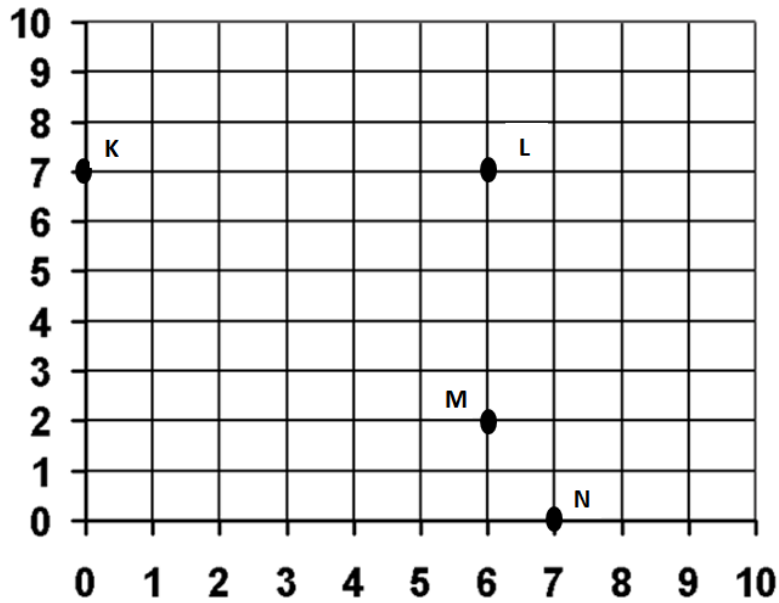
\_\_\_\_\_ 4. Which two points have the same x-coordinate? (5.G.2)

- A. G and H
- B. G and J
- C. H and I
- D. I and J

\_\_\_\_\_ 5. Point G has the same y-coordinate as point \_\_\_\_\_. (5.G.2)

- A. H
- B. J
- C. I
- D. The origin

Use the coordinate plane to answer questions 6-8.



\_\_\_\_\_ 6. Which point is located on the x-axis? (5.G.1)

- A. K
- B. L
- C. M
- D. N

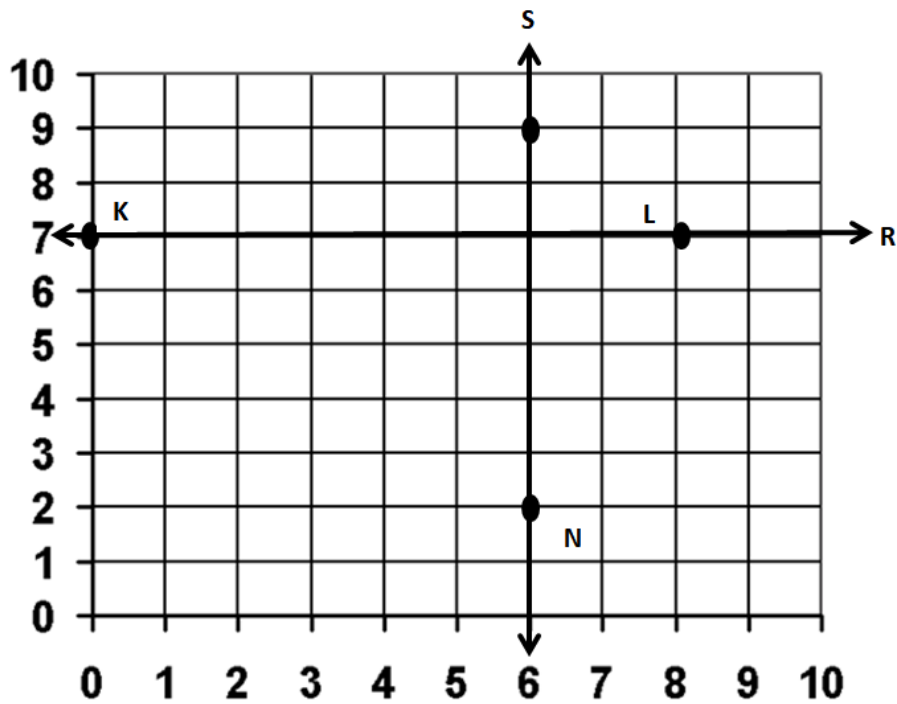
\_\_\_\_\_ 7. Which is the location of point M? (5.G.1)

- A. (2, 6)
- B. (3, 6)
- C. (6, 2)
- D. (6, 3)

\_\_\_\_\_ 8. Which point is located on the y-axis? (5.G.1)

- A. K
- B. L
- C. M
- D. N

Use the coordinate plane to answer questions 9-10.

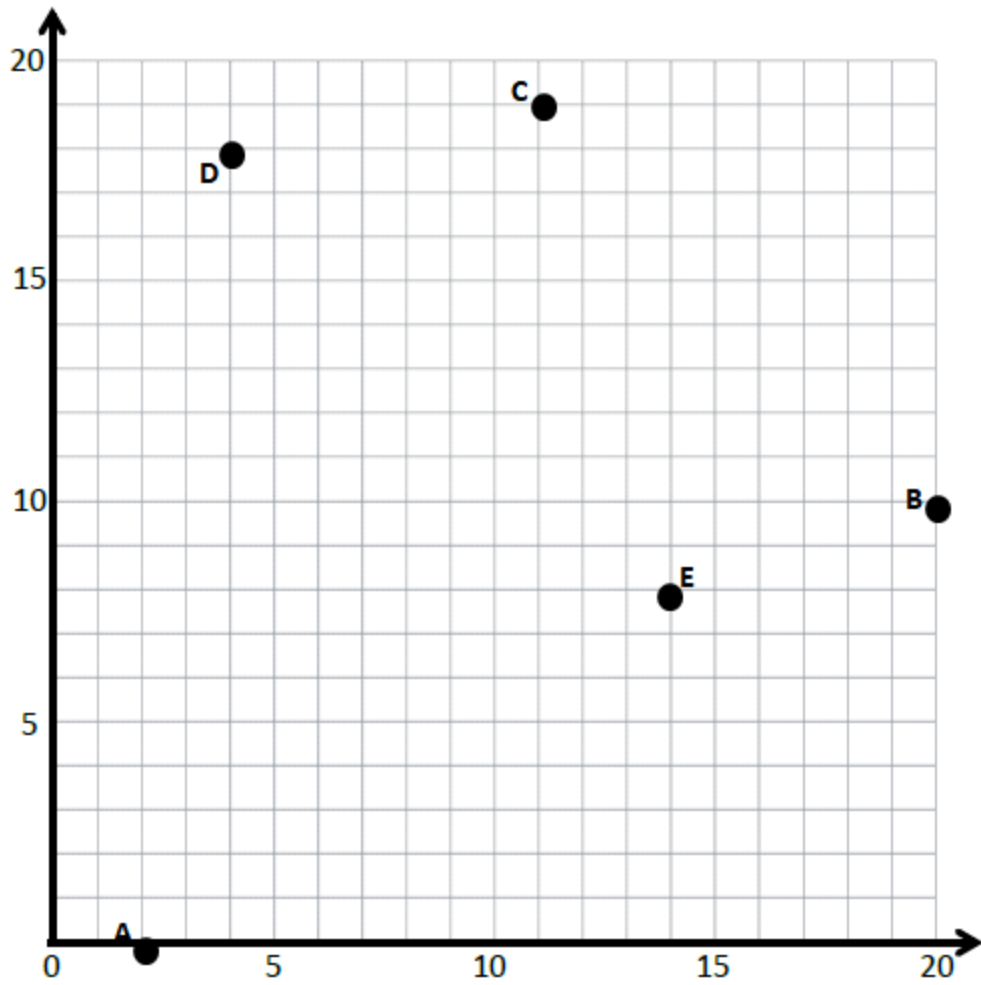


\_\_\_\_\_ 9. Line R is \_\_\_\_\_ to the x-axis and \_\_\_\_\_ to the y-axis. (5.G.1)

- A. parallel and perpendicular
- B. perpendicular and parallel
- C. parallel and parallel
- D. perpendicular and perpendicular

\_\_\_\_\_ 10. Line S is \_\_\_\_\_ to the x-axis and \_\_\_\_\_ to the y-axis. (5.G.1)

- A. parallel and perpendicular
- B. perpendicular and parallel
- C. parallel and parallel
- D. perpendicular and perpendicular



11. Plot each point in the coordinate plane above, and label each point with  $F$ ,  $G$ , or  $H$ .

(5.G.1)

$F(7, 14)$

$G(0, 12)$

$H(17, 20)$



12. Complete the chart for the given rules. (5.G.2)

Line a

Rule:  $y$  is 1 more than  $x$

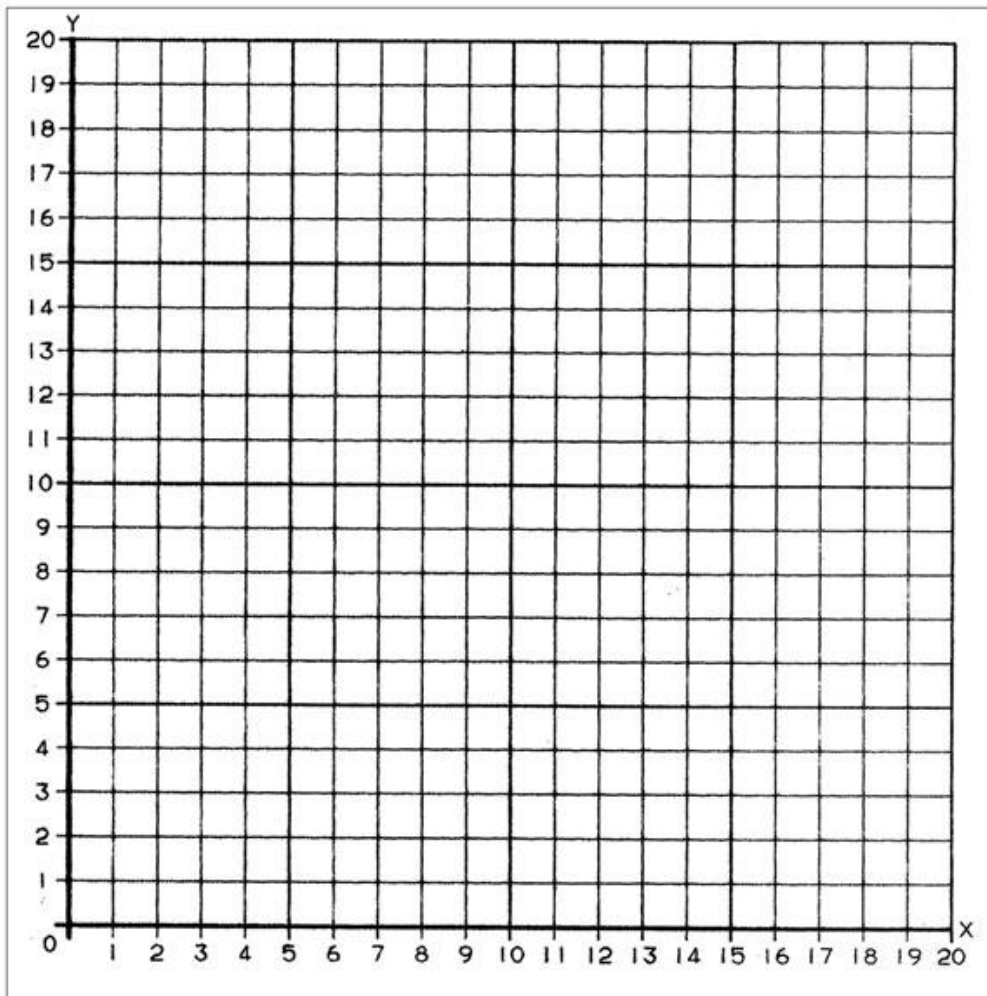
$x$	$y$	$(x, y)$
1		
5		
9		
13		

Line b

Rule:  $y$  is 4 more than  $x$

$x$	$y$	$(x, y)$
0		
5		
8		
11		

13. Draw each line on the coordinate plane. (5.G.2)



14. Write the rule for the following charts: (5.G.2)

a.

Point	$(x, y)$
$L$	$(0, 3)$
$M$	$(2, 3)$
$N$	$(4, 3)$

b.

Point	$(x, y)$
$O$	$(0, 0)$
$P$	$(1, 2)$
$Q$	$(2, 4)$

c.

Point	$(x, y)$
$R$	$(1, \frac{1}{2})$
$S$	$(2, 1\frac{1}{2})$
$T$	$(3, 2\frac{1}{2})$

d.

Point	$(x, y)$
$U$	$(1, 3)$
$V$	$(2, 6)$
$W$	$(3, 9)$

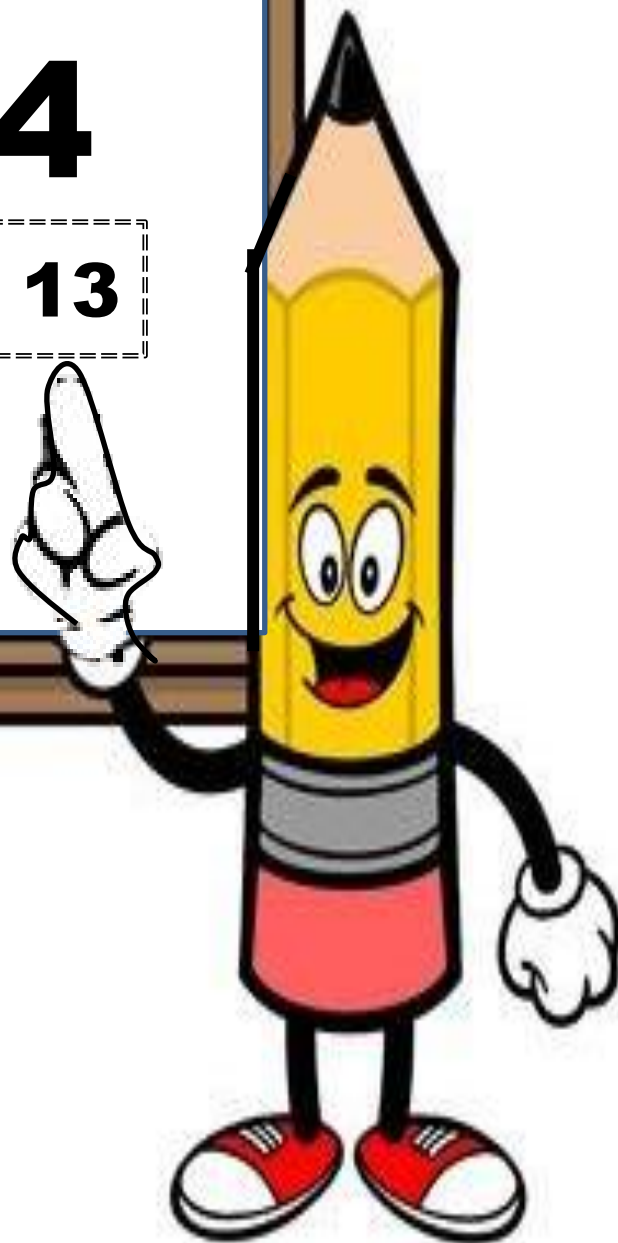
a: \_\_\_\_\_ b: \_\_\_\_\_

c: \_\_\_\_\_ d: \_\_\_\_\_



# Day # 4

**Mod 6 Packet 13**



Name: \_\_\_\_\_ Week 36 Day 4 Date: \_\_\_\_\_

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## Do Now

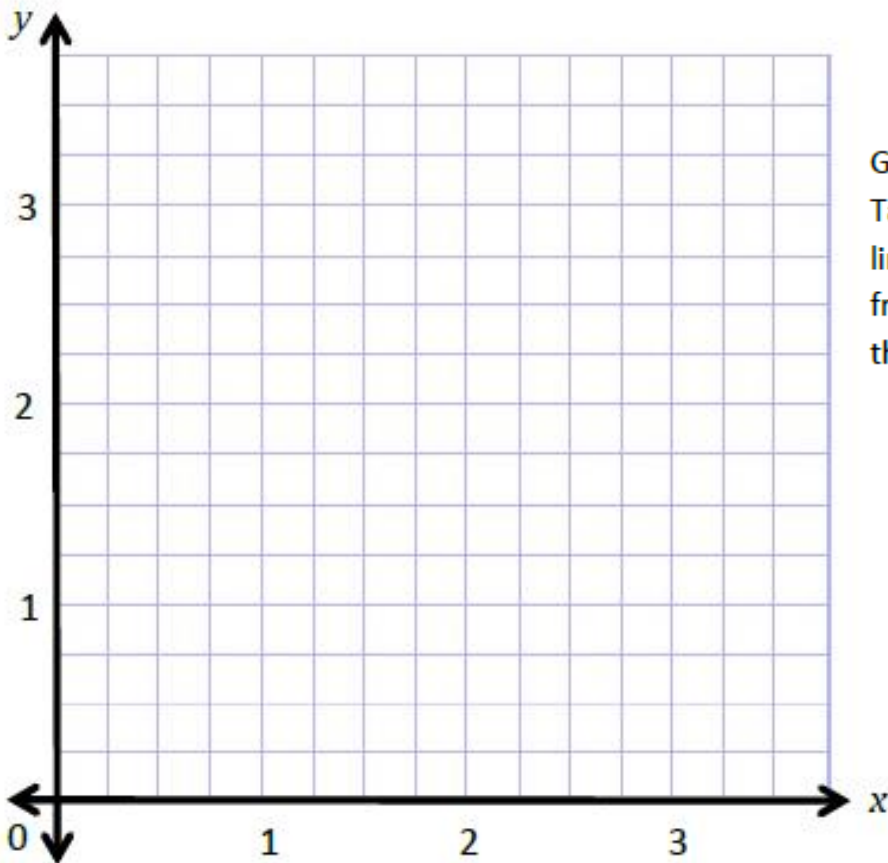
Find the  $y$ -coordinates by following the rules given for each table.

**Table A:** Multiply by  $\frac{1}{2}$ .

$x$	$y$
0	
1	
2	
3	

**Table B:** Multiply by  $\frac{1}{4}$ .

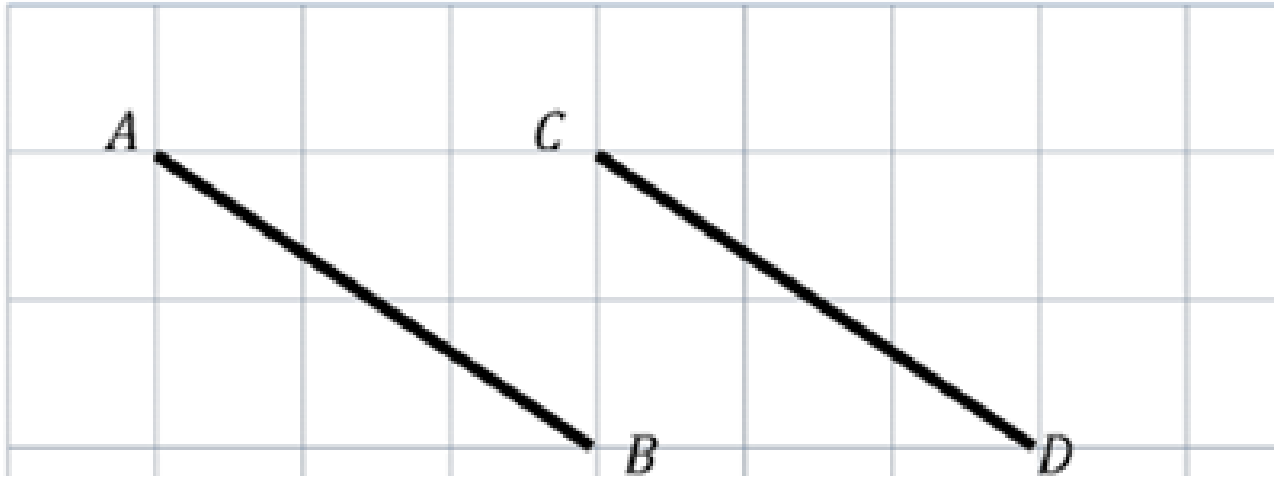
$x$	$y$
0	
1	
2	
3	



Graph and label the coordinate pairs from Table A. Connect the points, and label the line  $a$ . Graph and label the coordinate pairs from Table B. Connect the points, and label the line  $b$ .

**Problem 1:**

**Identifying parallel lines**



Is line AB parallel to line CD? \_\_\_\_\_

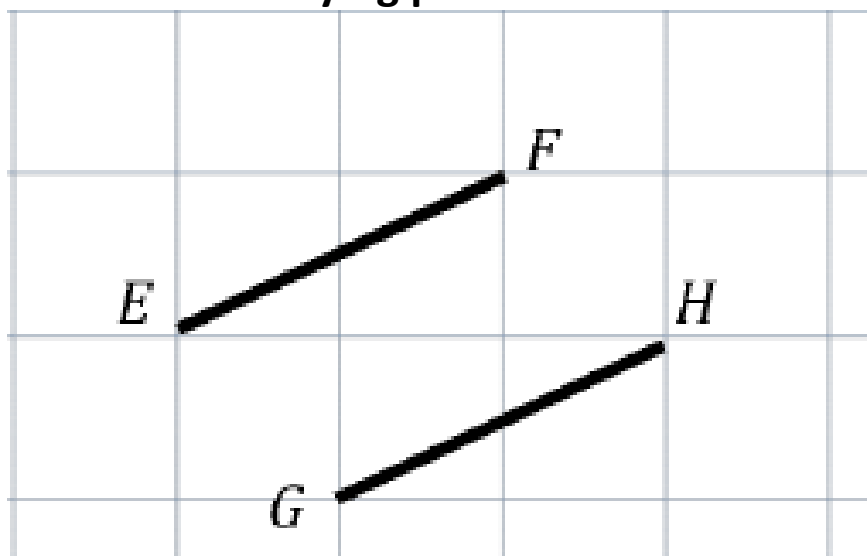
How do you know? \_\_\_\_\_  
\_\_\_\_\_

Create a right triangle using line AB.

Create a right triangle using line CD.

**Problem 2:**

**Identifying parallel lines**



Is line EF parallel to line GH? \_\_\_\_\_

How do you know? \_\_\_\_\_

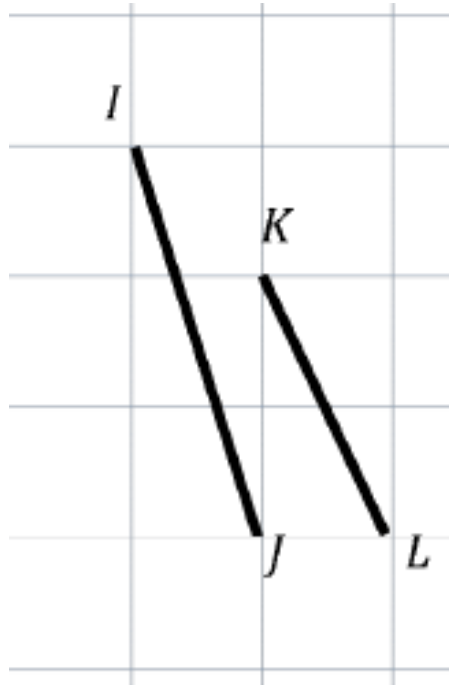
\_\_\_\_\_

Create a right triangle using line EF.

Create a right triangle using line GH.

**Problem 3:**

**Identifying parallel lines**



Is line IJ parallel to line KL? \_\_\_\_\_

How do you know? \_\_\_\_\_

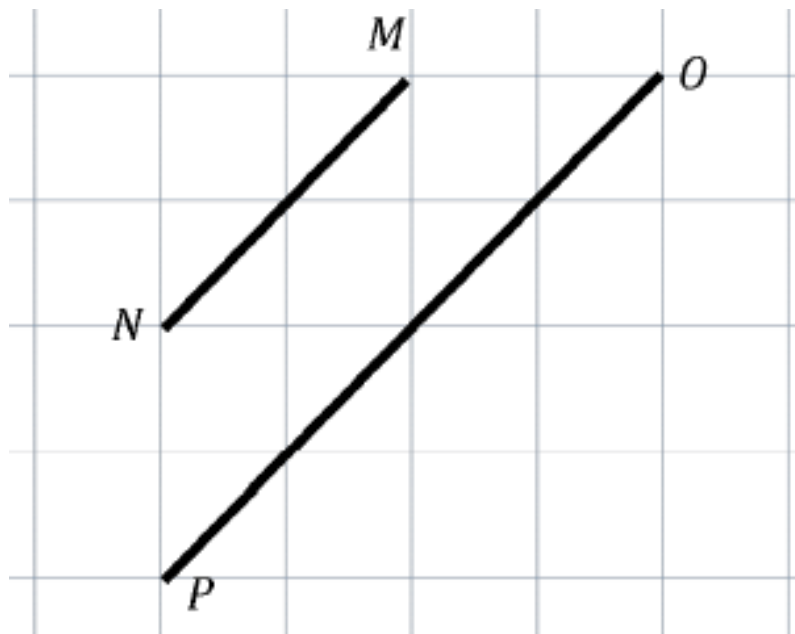
\_\_\_\_\_

Extend both lines and explain what happened when you extended the line. \_\_\_\_\_

\_\_\_\_\_

**Problem 4:**

**Identifying parallel lines**



Is line MN parallel to line OP? \_\_\_\_\_

How do you know? \_\_\_\_\_

\_\_\_\_\_

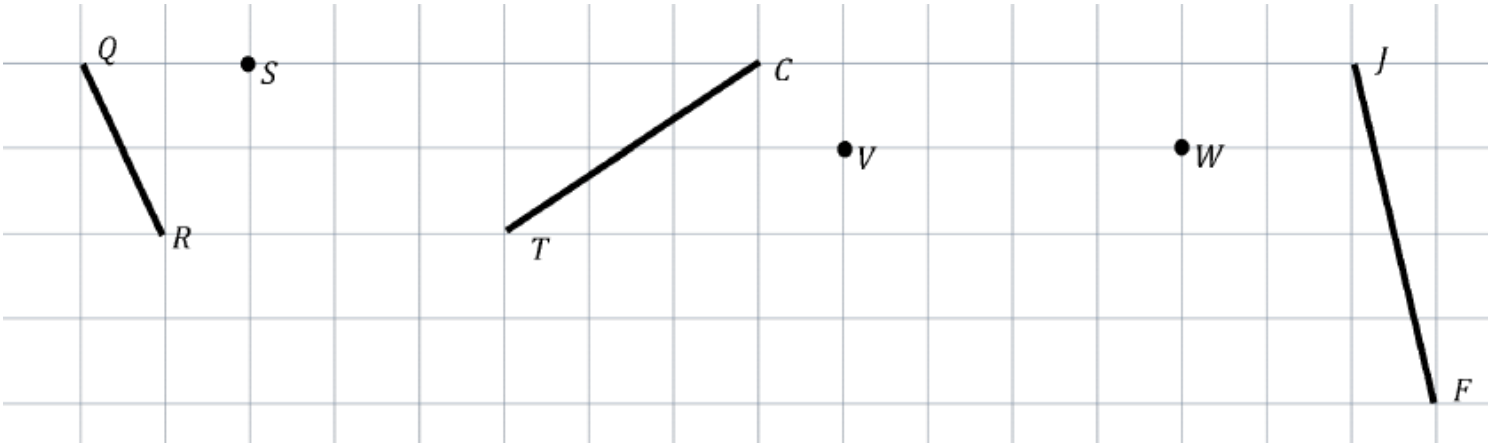
Extend both lines and explain what happened when you extended the line. \_\_\_\_\_

\_\_\_\_\_



**Problem 5:**

**Create Parallel Lines**



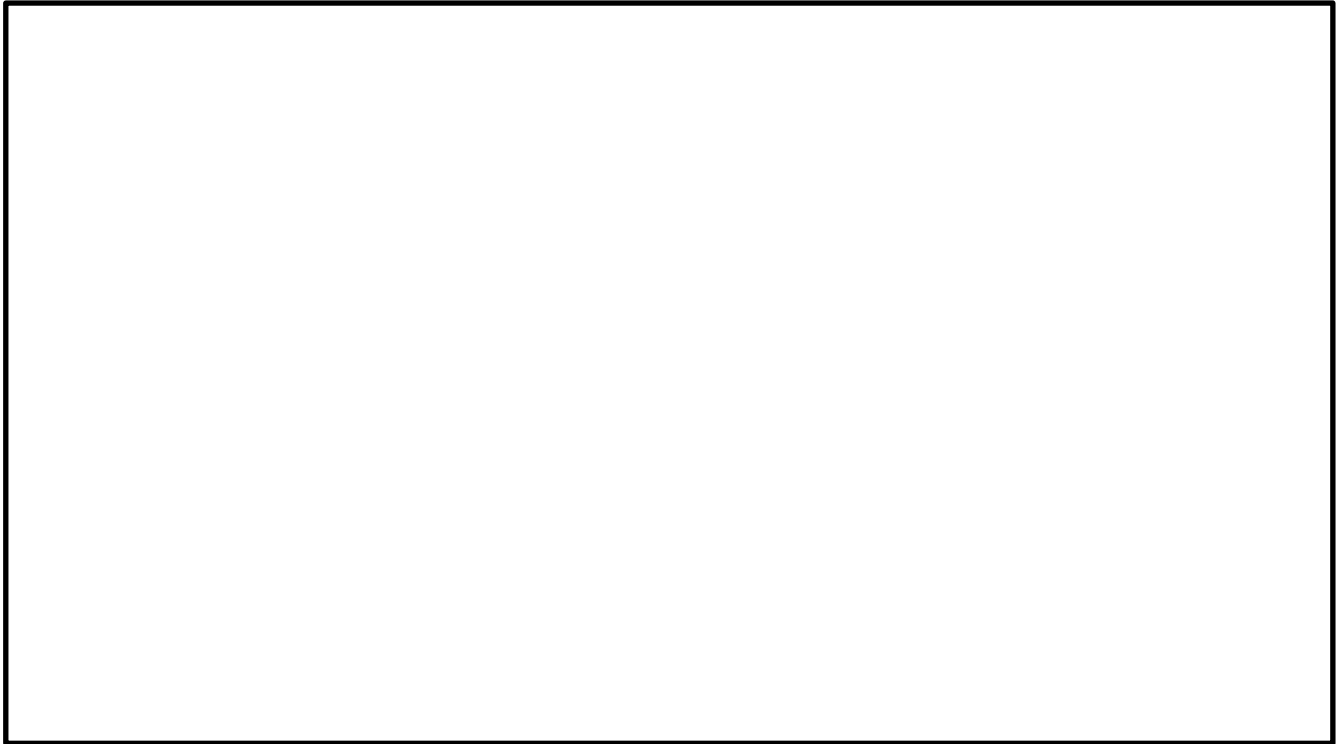
**Problem 6:**

**Create Parallel Lines**



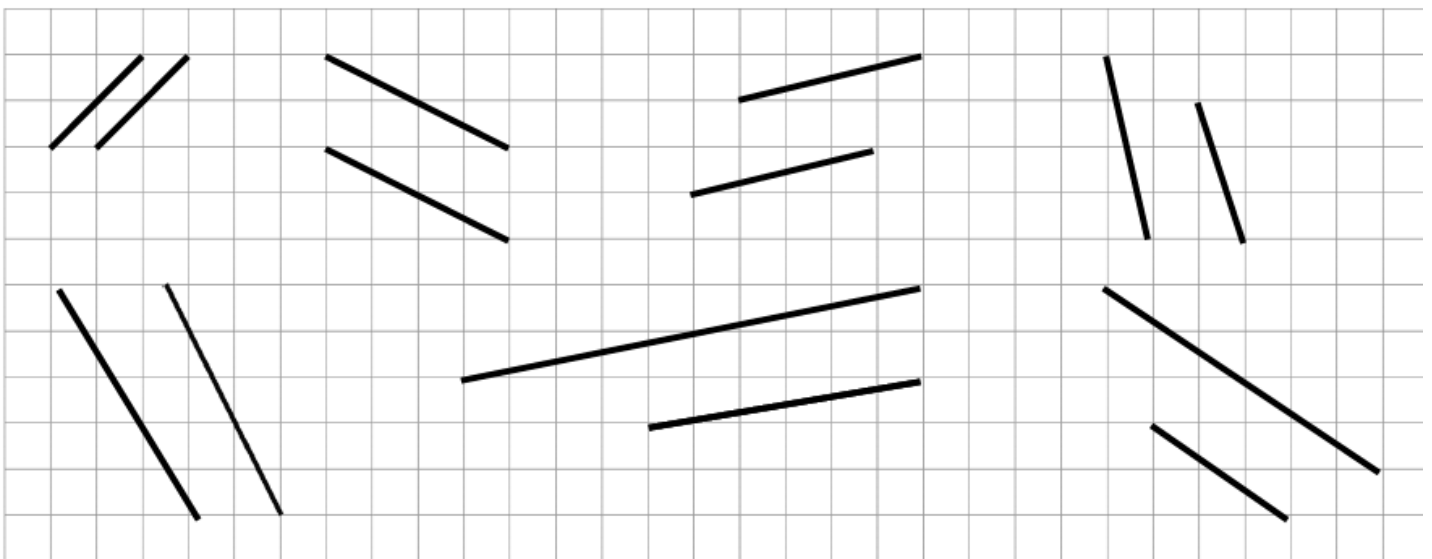
**Problem 7:**

Use a straightedge to draw at least four sets of parallel lines in the space below.



**Problem 8:**

**Circle the segments that are parallel.**



## Problem Set:

Use your straightedge to draw a segment parallel to each segment through the given point.

The grid contains six problems, each with a segment and a point:

- a.** A vertical segment on the left and point *S* on the top line.
- b.** A horizontal segment in the middle and point *T* on the line below it.
- c.** A diagonal segment sloping up to the right and point *U* on the top line.
- d.** A diagonal segment sloping up to the right and point *V* on the line below it.
- e.** A diagonal segment sloping down to the right and point *W* on the line above it.
- f.** A diagonal segment sloping down to the right and point *Z* on the line above it.

## Application Problem:

Draw 2 different lines parallel to line *b*.

The grid shows a line labeled *b* with arrows at both ends, sloping upwards from left to right. The line passes through the intersection of the 5th vertical grid line and the 3rd horizontal grid line from the bottom. The remaining space in the grid is intended for drawing two other lines parallel to line *b*.

## Exit Ticket:

Use your straightedge to draw a segment parallel to each segment through the given point.

The grid is 14 columns wide and 10 rows high. The problems are located in the top-left, top-right, and middle-left areas.

**a.** A segment is drawn from the top-left corner (row 2, column 1) to the middle-right (row 4, column 4). A point labeled  $H$  is located at row 4, column 2.

**b.** A segment is drawn from the top-right (row 2, column 12) to the middle-right (row 4, column 14). A point labeled  $I$  is located at row 2, column 13.

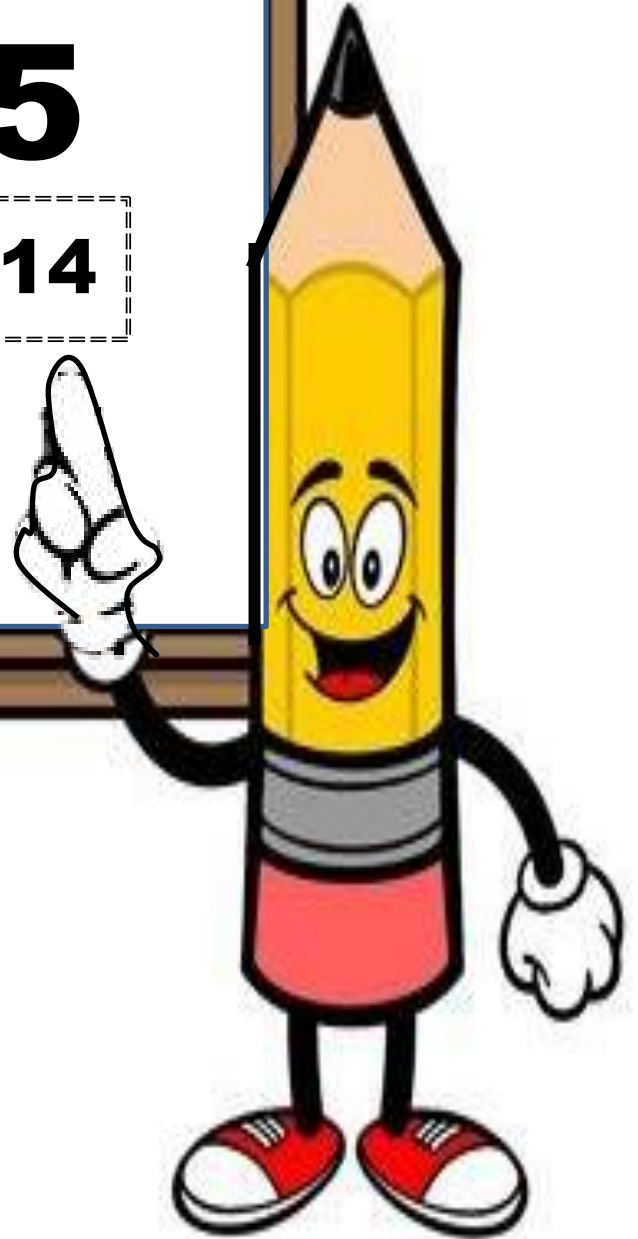
**c.** A segment is drawn from the bottom-left (row 8, column 3) to the middle-right (row 6, column 5). A point labeled  $J$  is located at row 6, column 4.



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# Day # 5

Mod 6 Packet 14



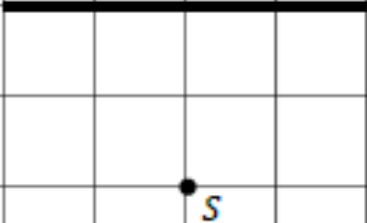
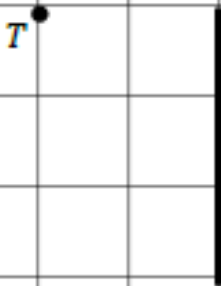


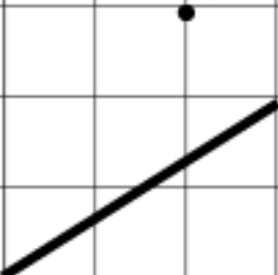
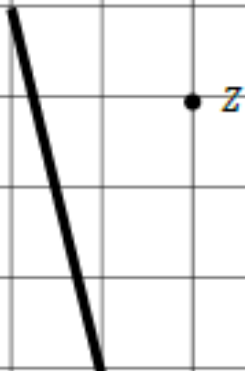
Name: \_\_\_\_\_ Week 36 Day 5 Date: \_\_\_\_\_

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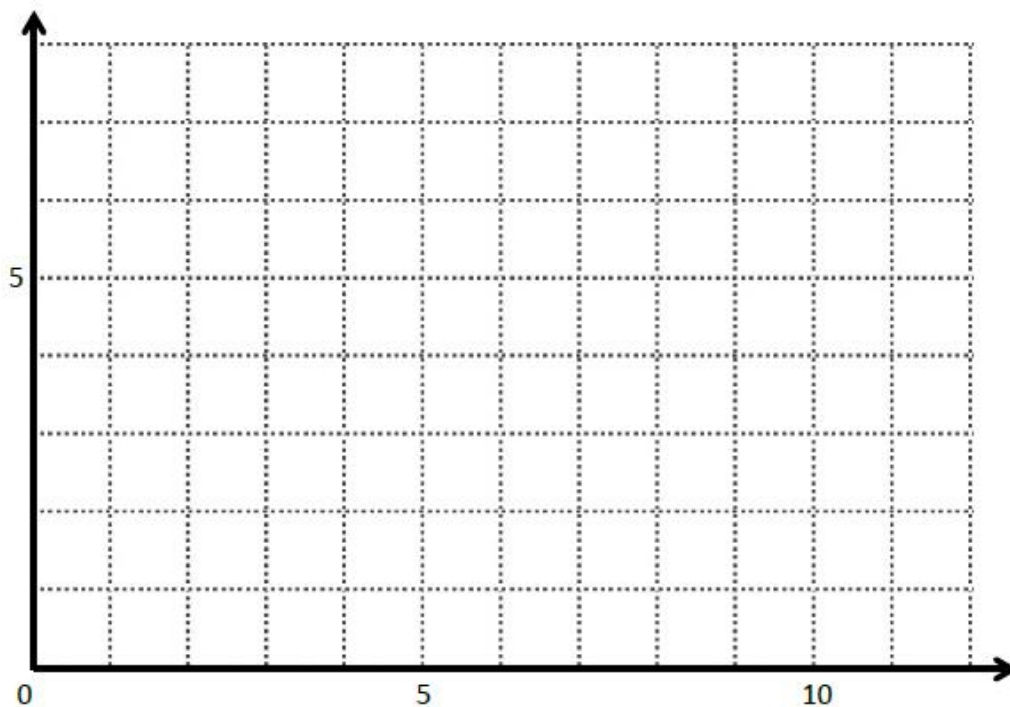
## Do Now

Use your straightedge to draw a segment parallel to each segment through the given point.

a.	b.	c.
		
d.	e.	f.
		

## Input Activity:

### Problem 1:



Plot A at (2, 3) and B at (7,5)

Draw  $\overleftrightarrow{AB}$

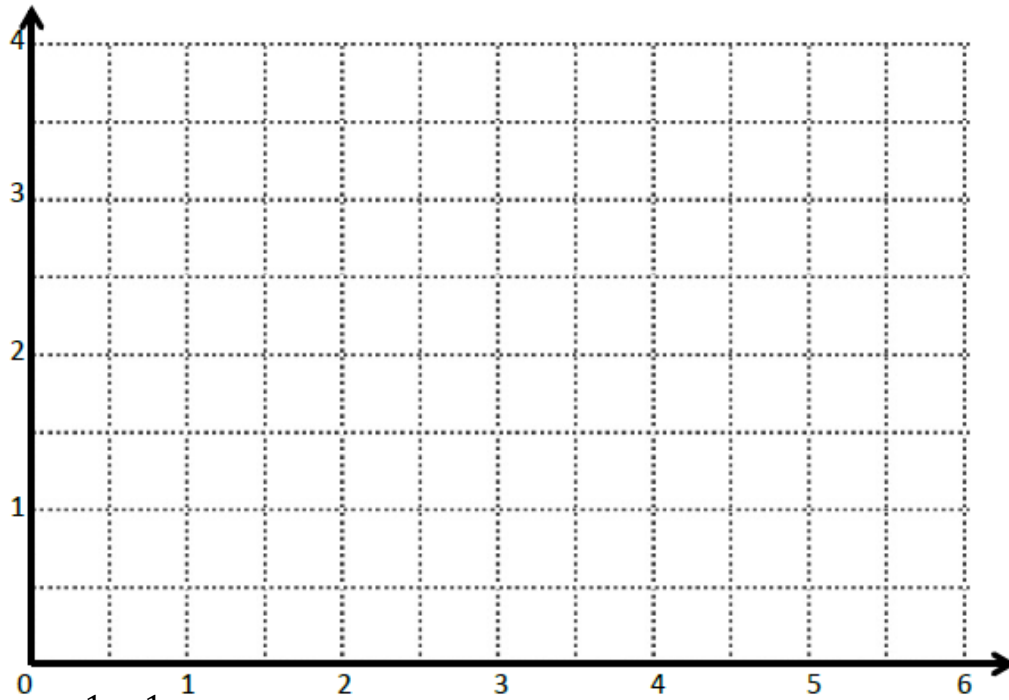
Plot S (4, 2)

Where would T be if you wanted to connect it to S and create a parallel line  $\overleftrightarrow{ST}$  to line  $\overleftrightarrow{AB}$ ? (\_\_\_\_, \_\_\_\_)

Compare the coordinates of points A and B to the coordinates of points S and T. \_\_\_\_\_

\_\_\_\_\_

**Problem 2:**



Plot C at  $(1\frac{1}{2}, 2\frac{1}{2})$  and D at  $(3, 2)$

Draw  $\overleftrightarrow{CD}$

Plot E  $(\frac{1}{2}, 2\frac{1}{2})$

Where would F be if you wanted to connect it to E and create a parallel line  $\overleftrightarrow{EF}$  to line  $\overleftrightarrow{CD}$ ? (\_\_\_\_, \_\_\_\_). Draw  $\overleftrightarrow{EF}$ . \_\_\_\_\_

Compare the coordinates of points C and D to the coordinates of points E and F. \_\_\_\_\_

Plot point G  $(3\frac{1}{2}, 2\frac{1}{2})$

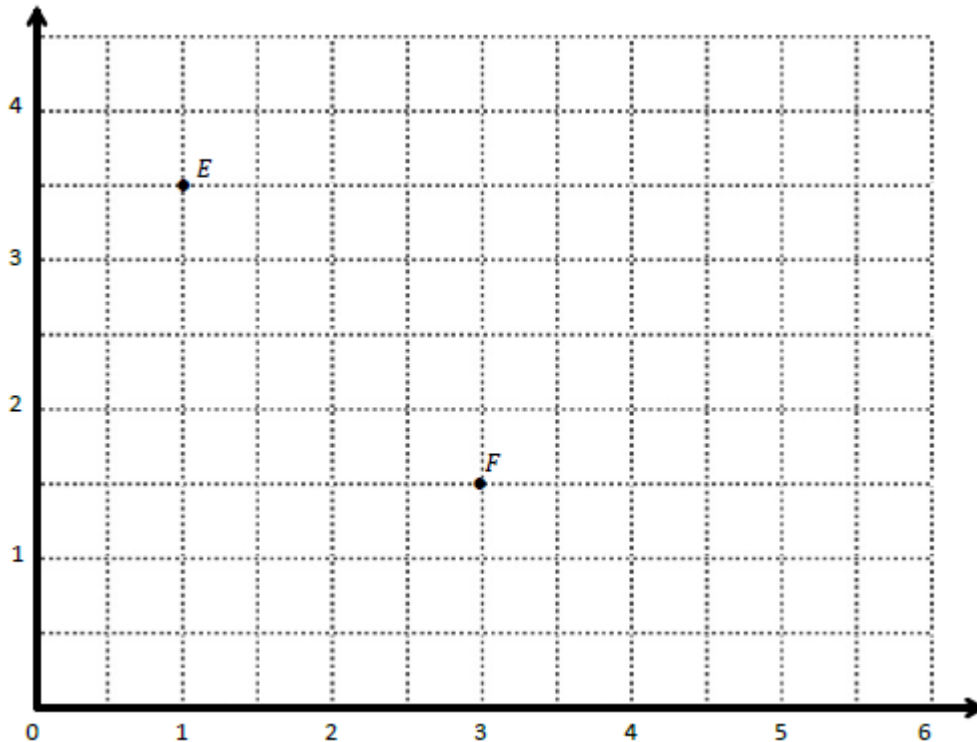
Name a location of point H that when connected to G would create a segment parallel to line  $\overleftrightarrow{CD}$ ? (\_\_\_\_, \_\_\_\_)

Draw  $\overleftrightarrow{GH}$  and write a statement about the relationship between these lines. \_\_\_\_\_



### Problem 3:

Use the coordinate plane below to complete the following tasks.



a. Identify the locations of  $E$  and  $F$ .  $E$ : (\_\_\_\_, \_\_\_\_)  $F$ : (\_\_\_\_, \_\_\_\_)

b. Draw  $\overleftrightarrow{EF}$ .

c. Generate coordinate pairs for  $L$  and  $M$ , such that  $\overleftrightarrow{EF} \parallel \overleftrightarrow{LM}$ .

$L$ : (\_\_\_\_, \_\_\_\_)  $M$ : (\_\_\_\_, \_\_\_\_)

d. Draw  $\overleftrightarrow{LM}$ .

e. Explain the pattern you made use of when generating coordinate pairs for  $L$  and  $M$ .

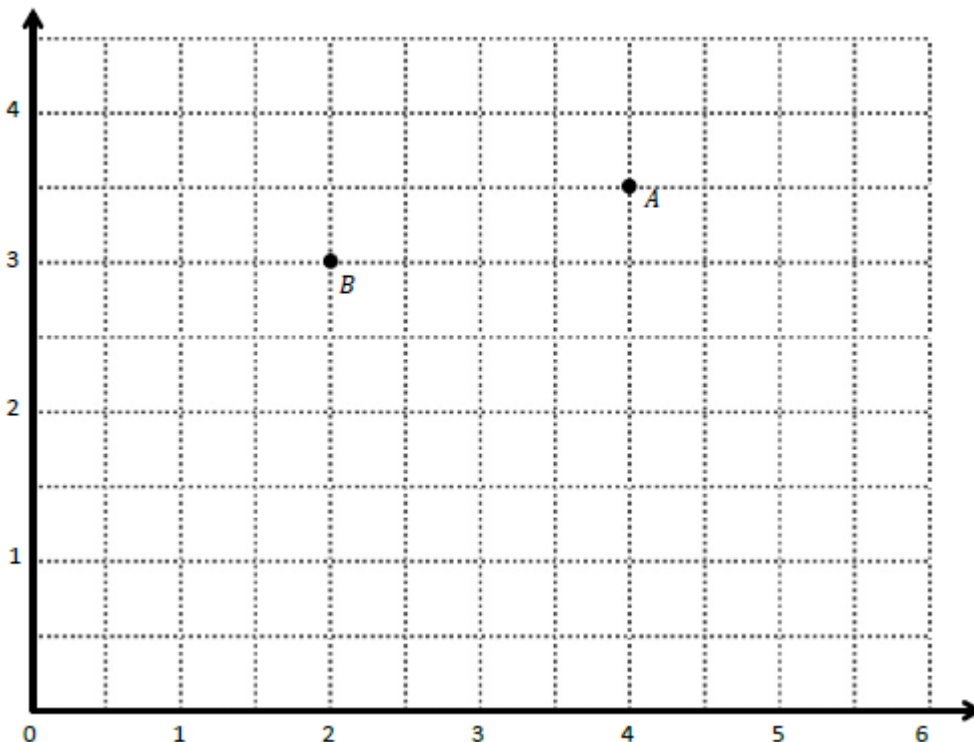
f. Give the coordinates of a point,  $H$ , such that  $\overleftrightarrow{EF} \parallel \overleftrightarrow{GH}$ .

$G$ :  $(1\frac{1}{2}, 4)$   $H$ : (\_\_\_\_, \_\_\_\_)

g. Explain how you chose the coordinates for  $H$ .

### Problem Set:

Use the coordinate plane below to complete the following tasks.



a. Identify the locations of  $A$  and  $B$ .  $A$ : (\_\_\_\_, \_\_\_\_)  $B$ : (\_\_\_\_, \_\_\_\_)

b. Draw  $\overleftrightarrow{AB}$ .

c. Generate coordinate pairs for  $C$  and  $D$ , such that  $\overleftrightarrow{AB} \parallel \overleftrightarrow{CD}$ .

$C$ : (\_\_\_\_, \_\_\_\_)  $D$ : (\_\_\_\_, \_\_\_\_)

d. Draw  $\overleftrightarrow{CD}$ .

e. Explain the pattern you used when generating coordinate pairs for  $C$  and  $D$ .

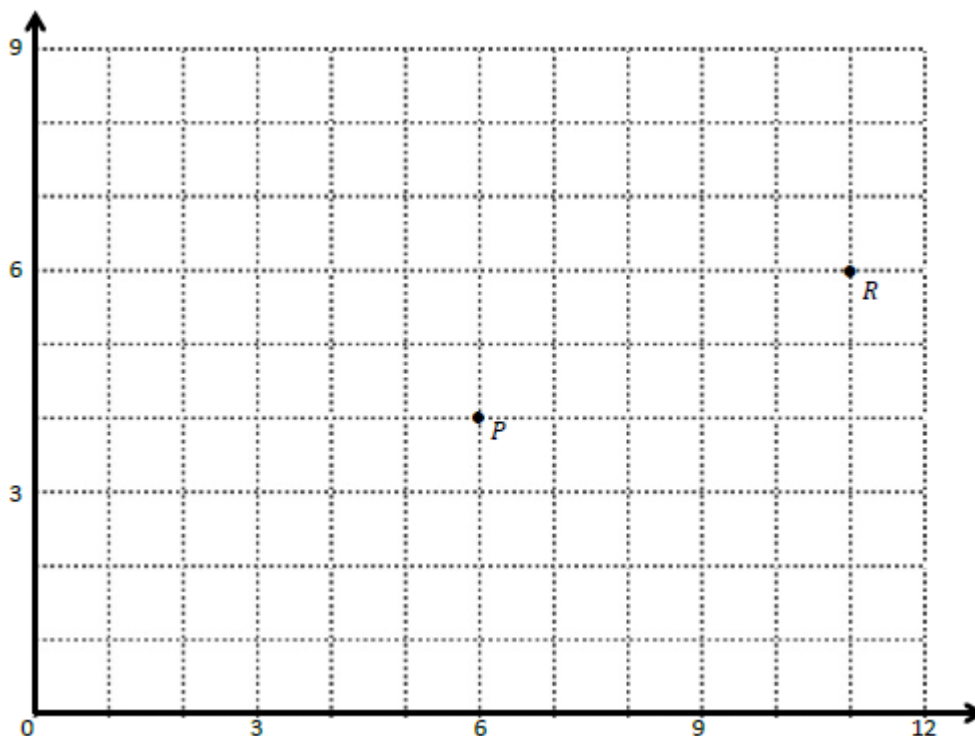
f. Give the coordinates of a point,  $F$ , such that  $\overleftrightarrow{AB} \parallel \overleftrightarrow{EF}$ .

$E$ :  $(2\frac{1}{2}, 2\frac{1}{2})$   $F$ : (\_\_\_\_, \_\_\_\_)

g. Explain how you chose the coordinates for  $F$ .

### Application Problem:

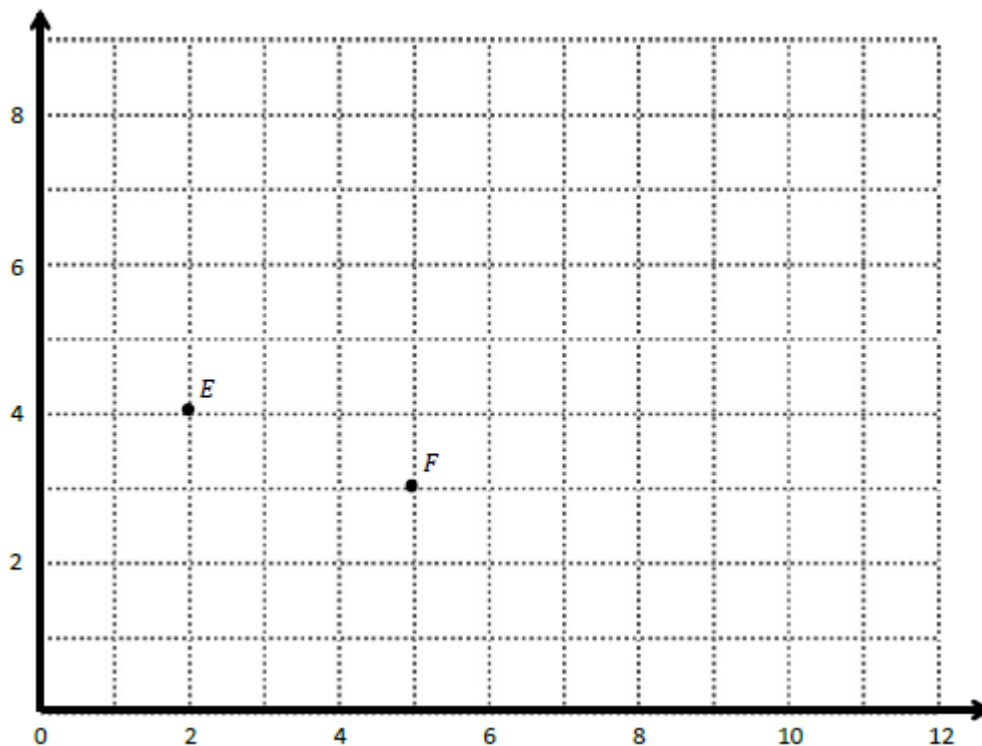
Use the coordinate plane below to complete the following tasks.



- Identify the locations of  $P$  and  $R$ .  $P$ : (\_\_\_\_, \_\_\_\_)  $R$ : (\_\_\_\_, \_\_\_\_)
- Draw  $\overrightarrow{PR}$ .
- Plot the following coordinate pairs on the plane.  
 $S$ : (6, 7)  $T$ : (11, 9)
- Draw  $\overrightarrow{ST}$ .
- Circle the relationship between  $\overrightarrow{PR}$  and  $\overrightarrow{ST}$ .  $\overrightarrow{PR} \perp \overrightarrow{ST}$   $\overrightarrow{PR} \parallel \overrightarrow{ST}$
- Give the coordinates of a pair of points,  $U$  and  $V$ , such that  $\overrightarrow{UV} \parallel \overrightarrow{PR}$ .  
 $U$ : (\_\_\_\_, \_\_\_\_)  $V$ : (\_\_\_\_, \_\_\_\_)
- Draw  $\overrightarrow{UV}$ .

### Exit Ticket:

Use the coordinate plane below to complete the following tasks.



- Identify the locations of  $E$  and  $F$ .  $E$ : (\_\_\_\_, \_\_\_\_)  $F$ : (\_\_\_\_, \_\_\_\_)
- Draw  $\overleftrightarrow{EF}$ .
- Generate coordinate pairs for  $L$  and  $M$ , such that  $\overleftrightarrow{EF} \parallel \overleftrightarrow{LM}$ .  
 $L$ : (\_\_\_\_, \_\_\_\_)  $M$ : (\_\_\_\_, \_\_\_\_)
- Draw  $\overleftrightarrow{LM}$ .



Name \_\_\_\_\_

# 5<sup>th</sup> Grade Modified Math Remote Learning Packet

## Week 37



Dear Educator,

My signature is proof that I have reviewed my scholar's work and supported him to the best of my ability to complete all assignments.

\_\_\_\_\_  
(Parent Signature)

\_\_\_\_\_  
(Date)

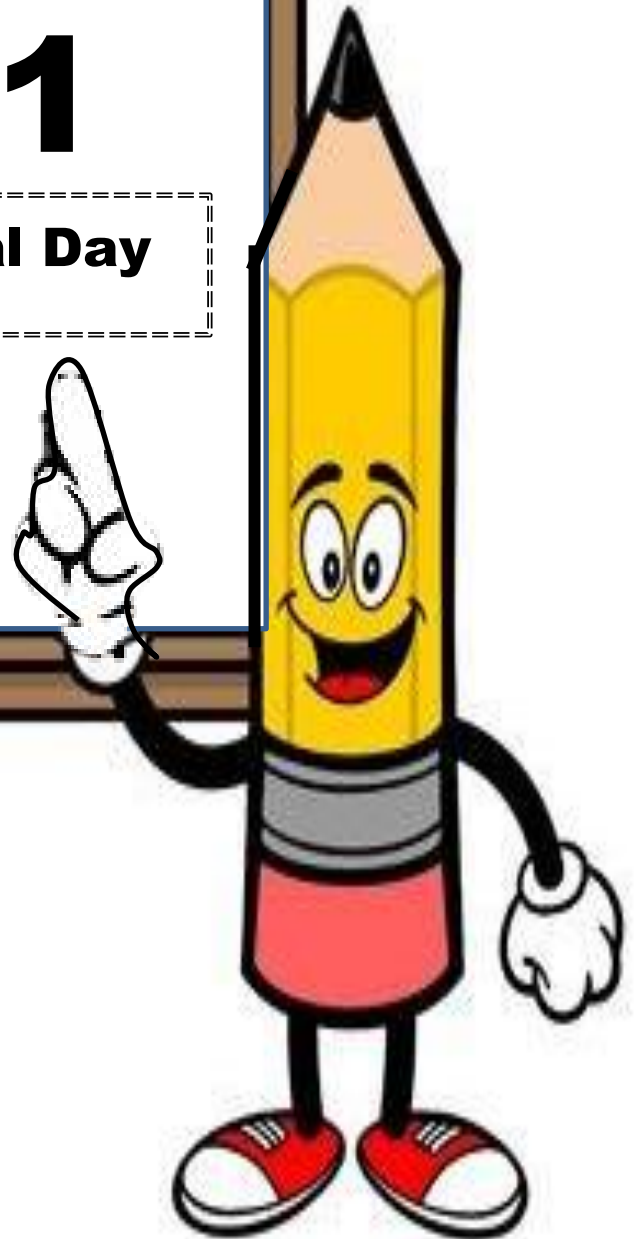
Parents please note that all academic packets are also available on our website at [www.brighterchoice.org](http://www.brighterchoice.org) under the heading "Remote Learning." All academic packet assignments are mandatory and must be completed by all scholars.



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# Day # 1

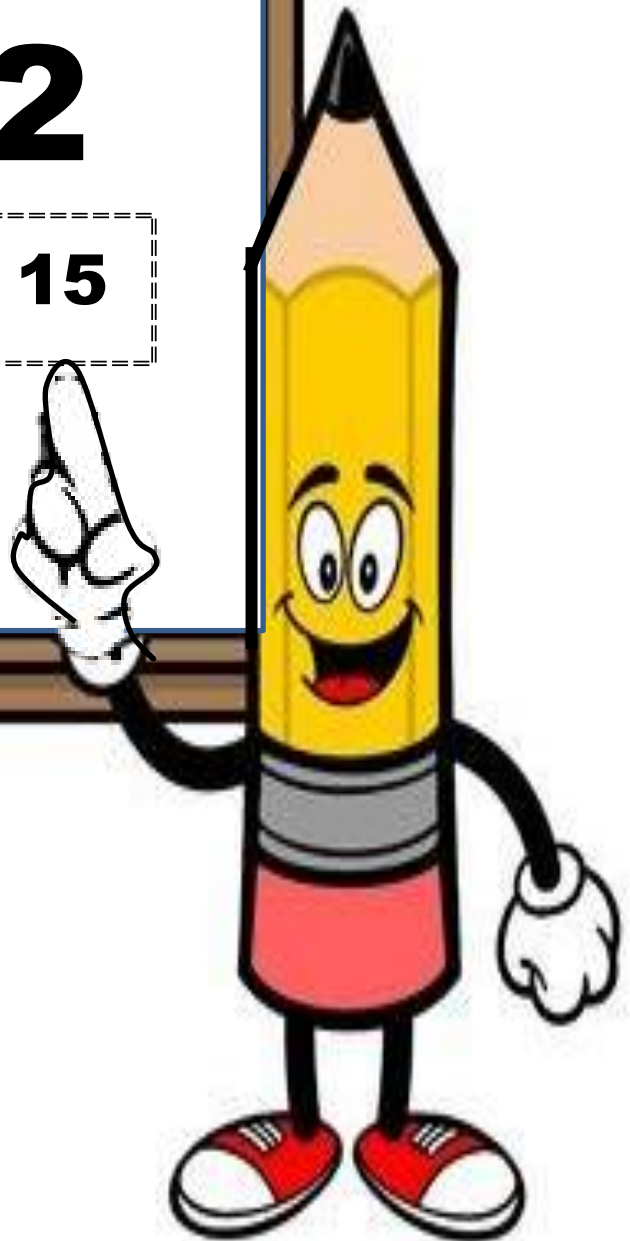
**No School – Memorial Day**





# Day # 2

**Mod 6 Packet 15**

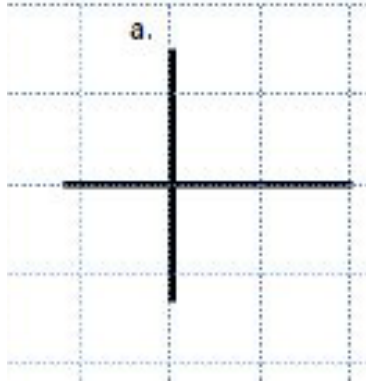






**Problem 1:**

**Identifying perpendicular lines**

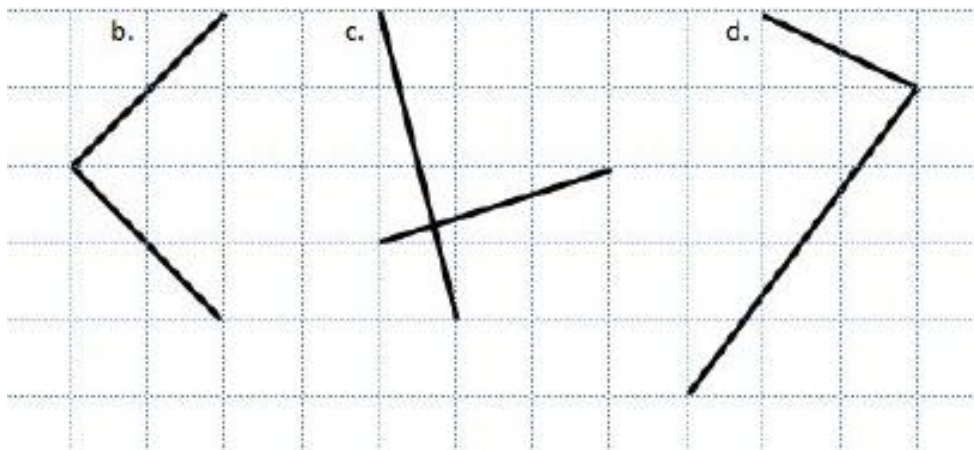


How do you know that a is showing perpendicular lines? \_\_\_\_\_

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**Problem 2:**

**Identifying perpendicular lines**



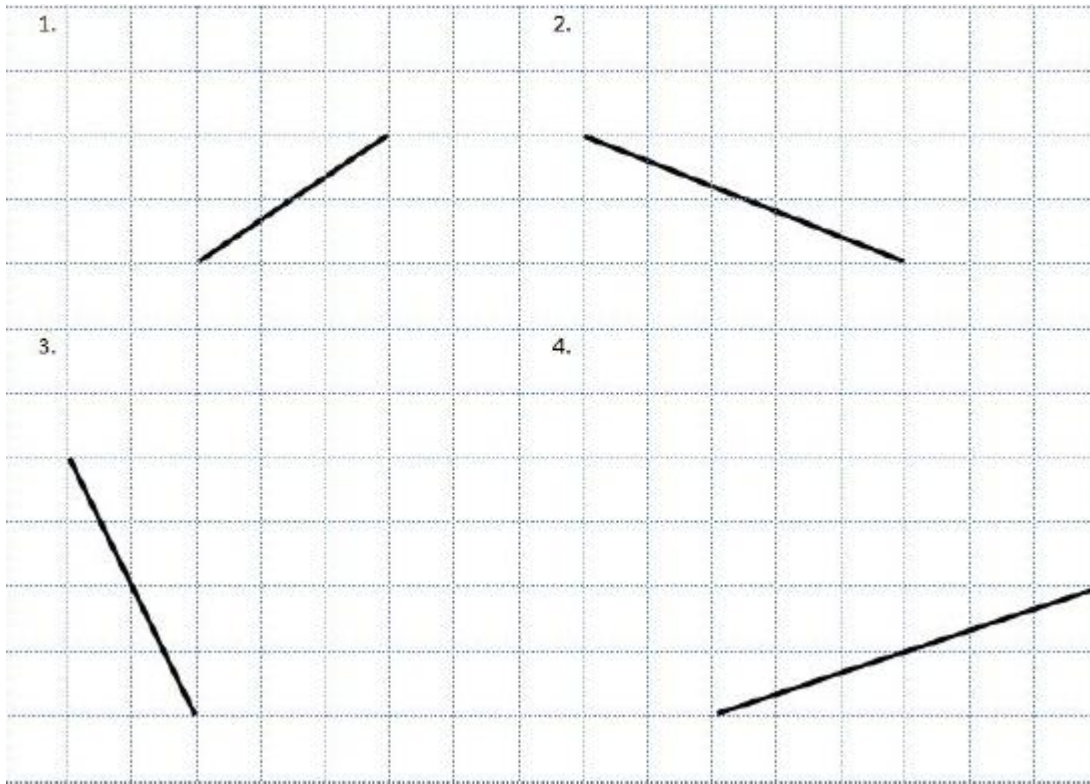
Circle the other lines that are perpendicular.

How do you know? \_\_\_\_\_

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### Problem 3:

### Create Perpendicular Lines



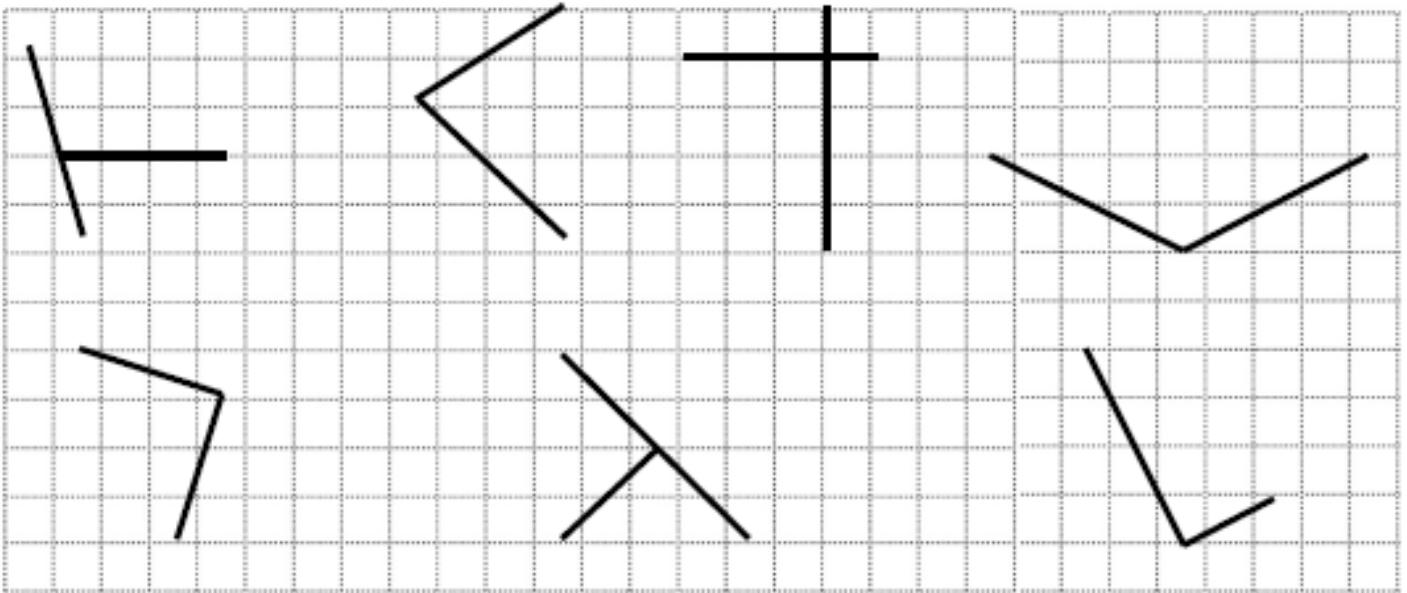
### Problem 4:

Use a straightedge to draw at least 3 different sets of perpendicular lines in the space below.



### Problem 5:

Circle the pairs of segments that are perpendicular.



## Problem Set:

Draw a segment perpendicular to each given segment. Show your thinking by sketching triangles as needed.

a. b. c. d.

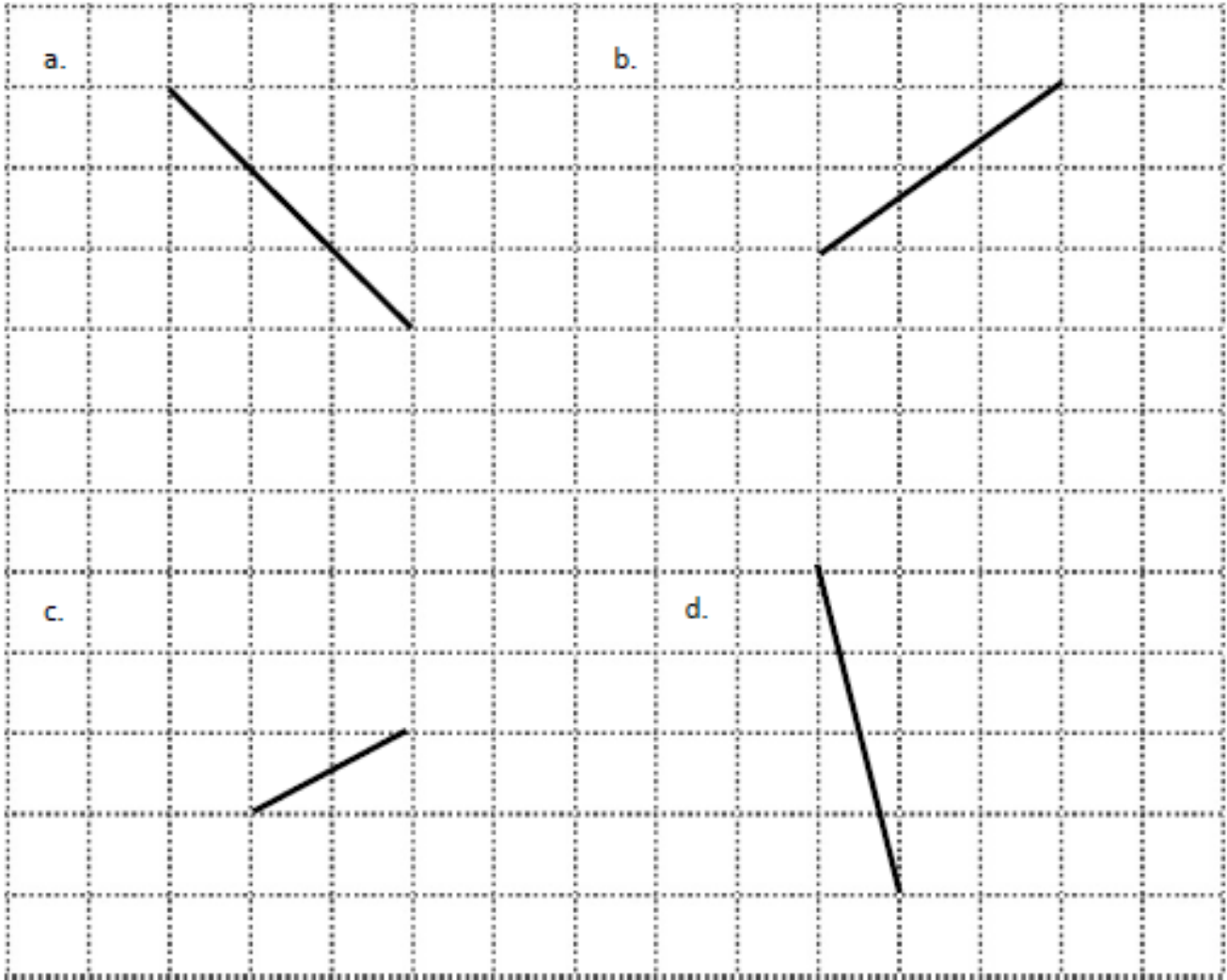
## Application Problem:

Draw 2 different lines perpendicular to line  $e$ .

$e$

## Exit Ticket:

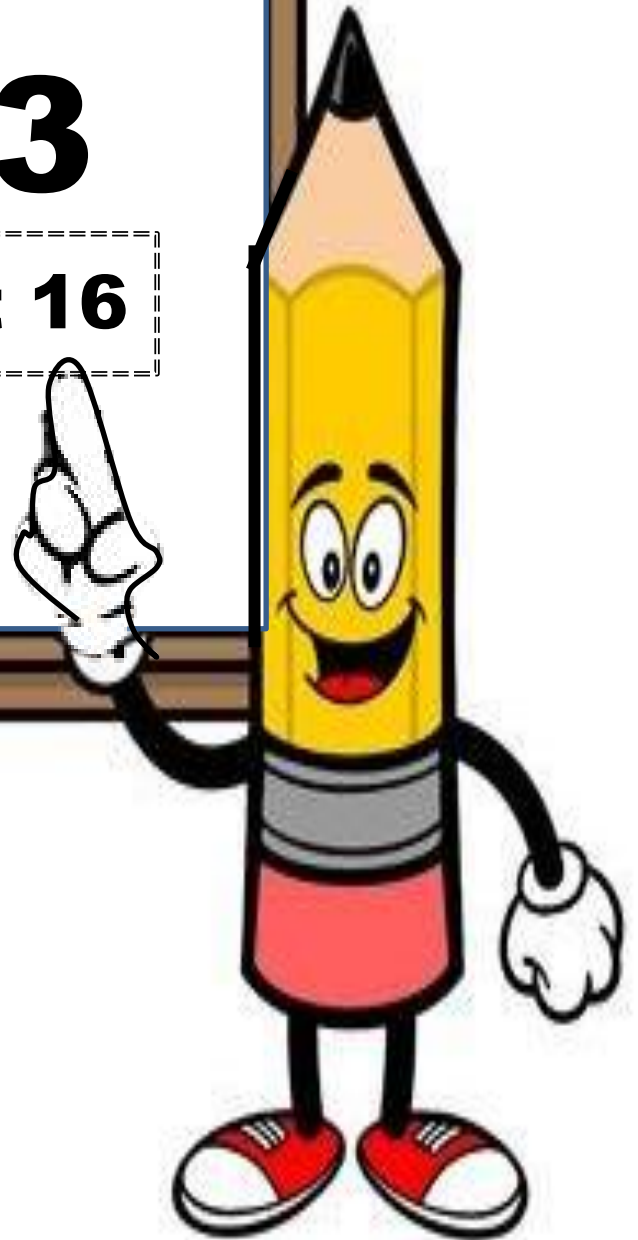
Draw a segment perpendicular to each given segment. Show your thinking by sketching triangles as needed.





# Day # 3

**Mod 6 Packet 16**





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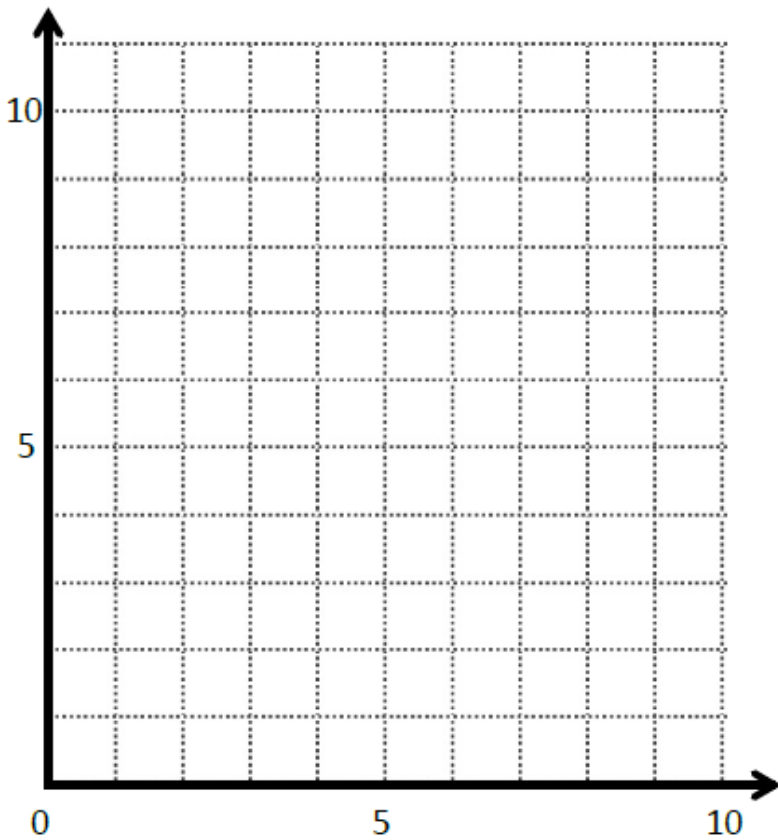
## Do Now

Draw a segment perpendicular to each given segment. Show your thinking by sketching triangles as needed.

<p>a.</p>	<p>b.</p>
<p>c.</p>	<p>d.</p>

Draw 2 different lines perpendicular to line *b*.

### Problem 1:

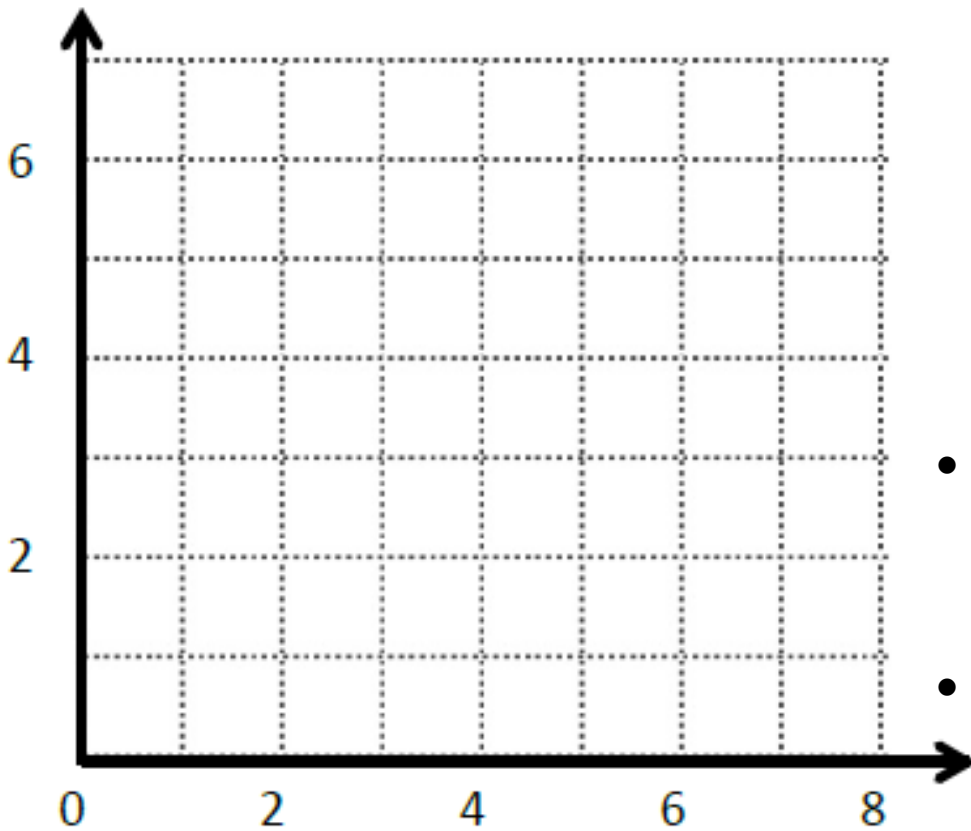


	$(x, y)$
<i>A</i>	
<i>B</i>	
<i>C</i>	

- Plot A at (3, 1) and plot B at (8, 3). Write the coordinates on the chart.
  - Draw a line to connect points A and B together.
- 
- Explain the directions it takes to go from A to B.  
\_\_\_\_\_
  - Plot C using the same directions but going opposite from A.
  - What are the coordinates for C? (\_\_\_\_\_, \_\_\_\_\_). Write them in the chart.
  - Draw a line connecting point A to point C.
  - What can we say about  $\overline{AB}$  and  $\overline{AC}$ ? \_\_\_\_\_



## Problem 2:



	$(x, y)$
$D$	
$E$	
$F$	

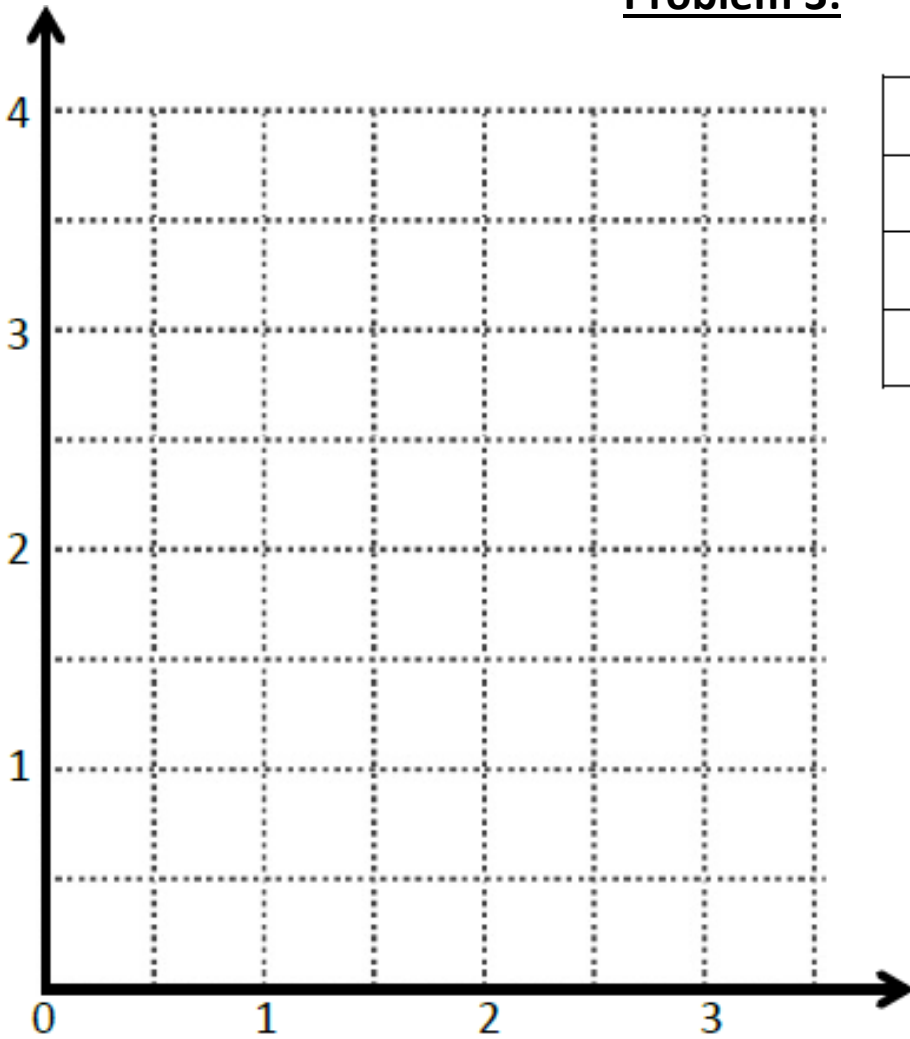
- Plot  $D$  at  $(2, 3)$  and plot  $E$  at  $(5, 2)$ . Write the coordinates on the chart.
- Draw a line to connect points  $D$  and  $E$  together.

- Explain the directions it takes to go from  $D$  to  $E$ .

\_\_\_\_\_

- Plot  $F$  using the same directions but going opposite from  $E$ .
- What are the coordinates for  $F$ ? (    ,     ). Write them in the chart.
- Draw a line connecting point  $E$  to point  $F$ .
- What can we say about  $\overline{DE}$  and  $\overline{EF}$ ? \_\_\_\_\_

### Problem 3:



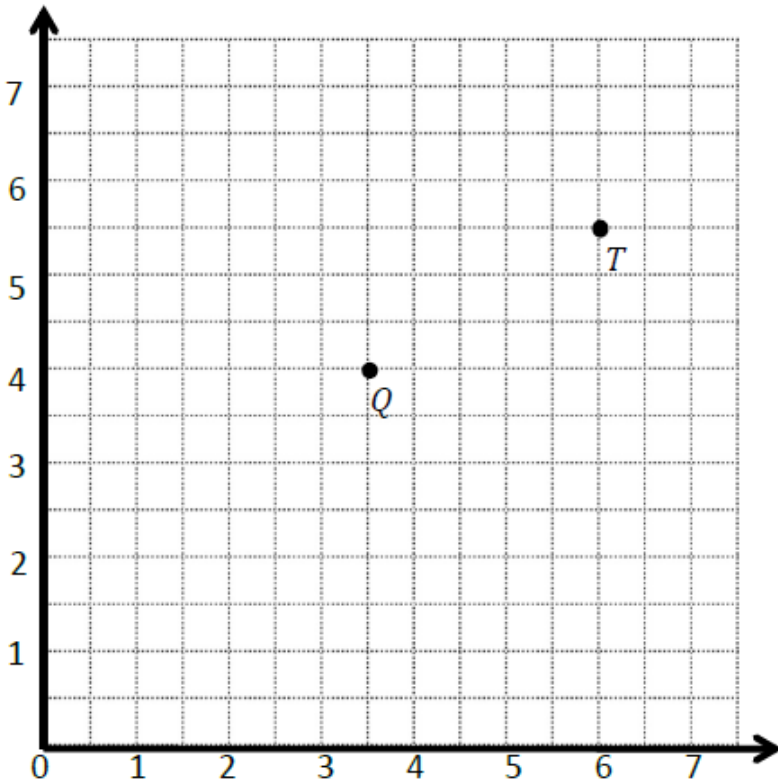
	$(x, y)$
$G$	
$H$	
$I$	

- Plot  $G$  at  $(3, 2\frac{1}{2})$  and plot  $H$  at  $(2, 1)$ . Write the coordinates on the chart.
- Draw a line to connect points  $G$  and  $H$  together.

- Explain the directions it takes to go from  $G$  to  $H$ .
- 

- Plot  $I$  using the same directions but going opposite from  $H$ .
- What are the coordinates for  $I$ ? (    ,     ). Write them in the chart.
- Draw a line connecting point  $H$  to point  $I$ .
- What can we say about  $\overline{HG}$  and  $\overline{IH}$ ? \_\_\_\_\_

### Problem 4:



	$(x, y)$
Q	
T	
R	

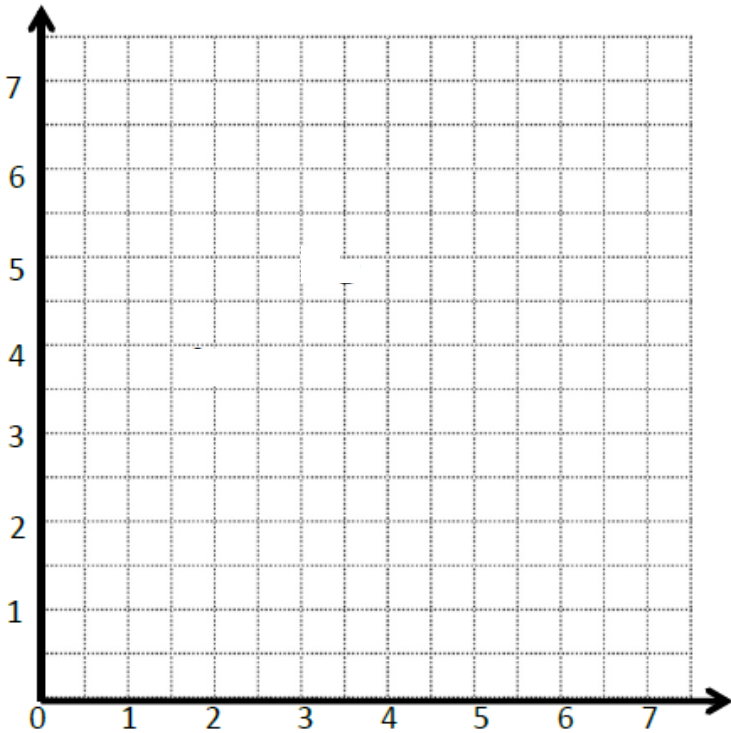
- Write the coordinates of Q and T on the chart.
- Draw a line to connect points Q and T together.

- Explain the directions it takes to go from Q to T.

\_\_\_\_\_

- Plot R using the same directions but going opposite from Q.
- What are the coordinates for R? (\_\_\_\_\_, \_\_\_\_\_). Write them in the chart.
- Draw a line connecting point Q to point R.
- What can we say about  $\overline{QR}$  and  $\overline{QT}$ ? \_\_\_\_\_
- $EF$  contains the following points.  $E: (4, 1)$   $F: (3, \frac{1}{2})$
- Give the coordinates of point  $H$ , such that  $EF \perp EH$ .  
H: (\_\_\_\_\_, \_\_\_\_\_)

## Problem Set:



	$(x, y)$
B	
C	
D	

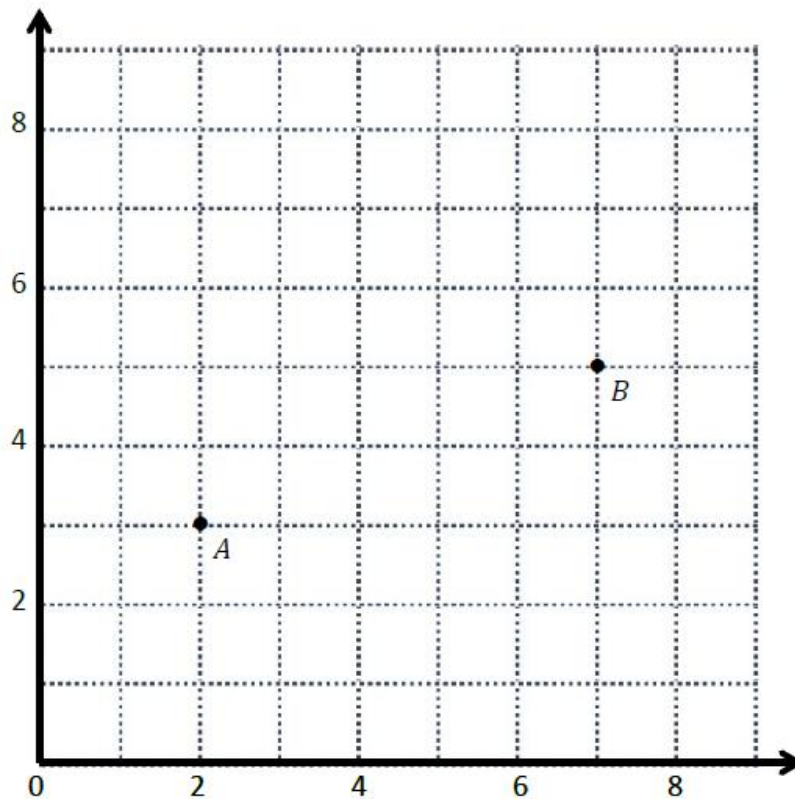
- Plot B at  $(5, 2)$  and plot C at  $(2\frac{1}{2}, 1)$ . Write the coordinates on the chart.
- Draw a line to connect points B and C together.

- Explain the directions it takes to go from B to C.

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- Plot D using the same directions but going opposite from C.
- What are the coordinates for D? (\_\_\_\_\_, \_\_\_\_\_). Write them in the chart.
- Draw a line connecting point C to point D.
- What can we say about  $\overline{CD}$  and  $\overline{BC}$ ? \_\_\_\_\_
- ST contains the following points. S:  $(2, 3)$  T:  $(3, 4\frac{1}{2})$
- Give the coordinate of point U, such that  $ST \perp SU$ .  
U: (\_\_\_\_\_, \_\_\_\_\_)

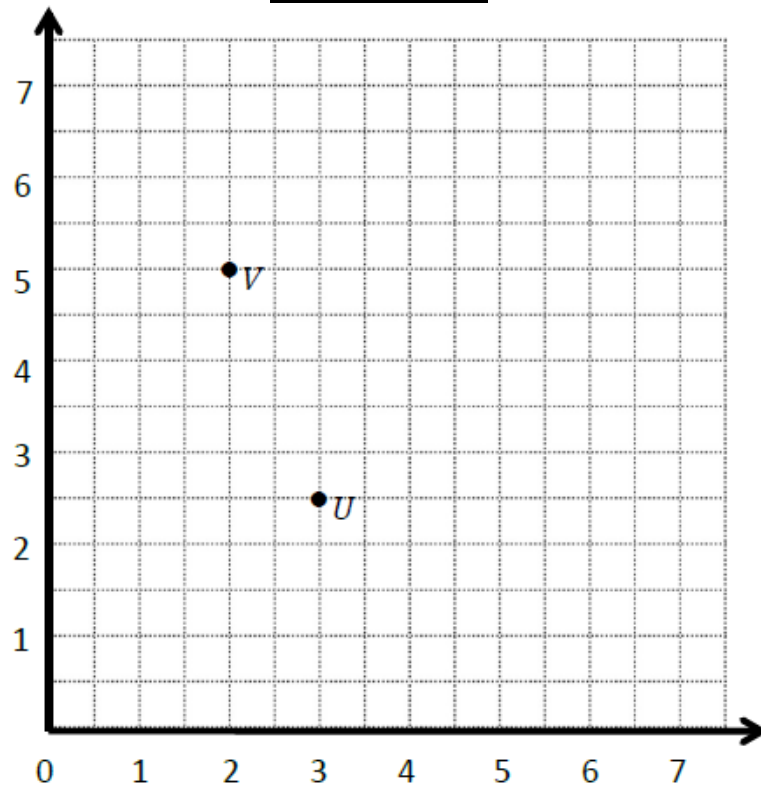
### Application Problem:



- What is the location of A ( ,  ) and B ( ,  )
- Draw  $AB$ .
- Plot point  $C$ .
- What is location of  $C$ ? ( ,  )
- Explain how you know where to plot point  $C$   

---
- Draw  $AC$ .
- Compare:  $AC$    $AB$

**Exit Ticket:**



- What is the location of U ( ,  ) and V ( ,  )
- Draw UV.
- Plot point W.
- What is location of W? ( ,  )
- Explain how you know where to plot point W  

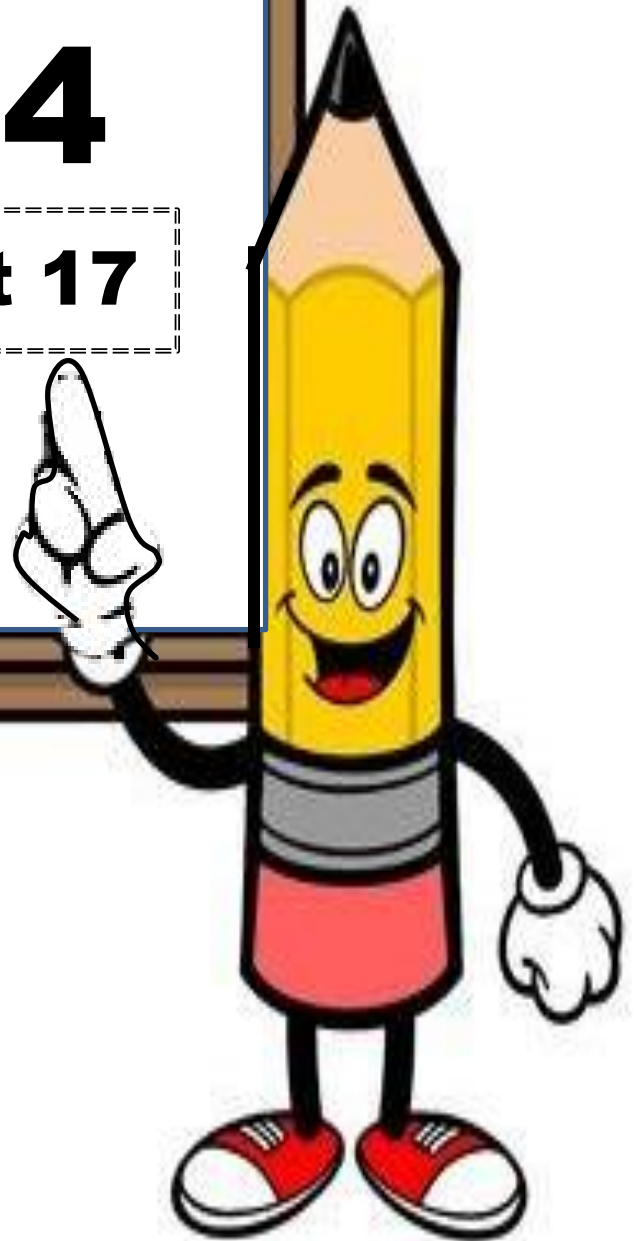
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- Draw UW.
- Compare: UV  UW



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# Day # 4

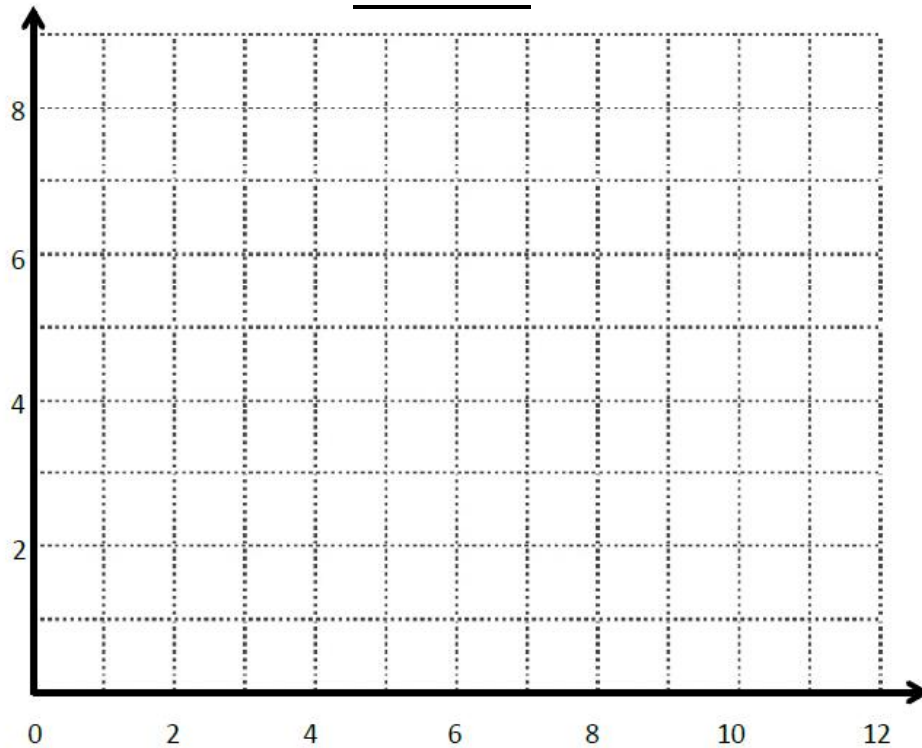
**Mod 6 Packet 17**



Name: \_\_\_\_\_ Week 36 Day 4 Date: \_\_\_\_\_

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**Do Now**

1. Plot  $(10, 8)$  and  $(3, 3)$  on the coordinate plane, connect the points with a straightedge, and label them as  $C$  and  $D$ .
2. Draw a segment parallel to  $CD$ .
3. Draw a segment perpendicular to  $CD$ .

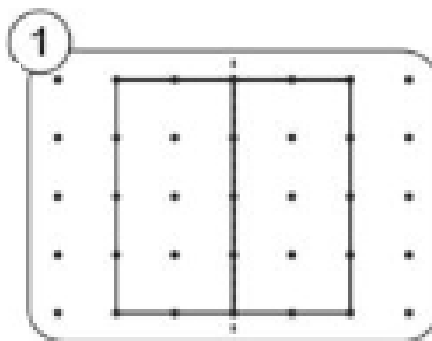


## Key Terms

**Symmetry** - when an            looks the exact            on one            as the other

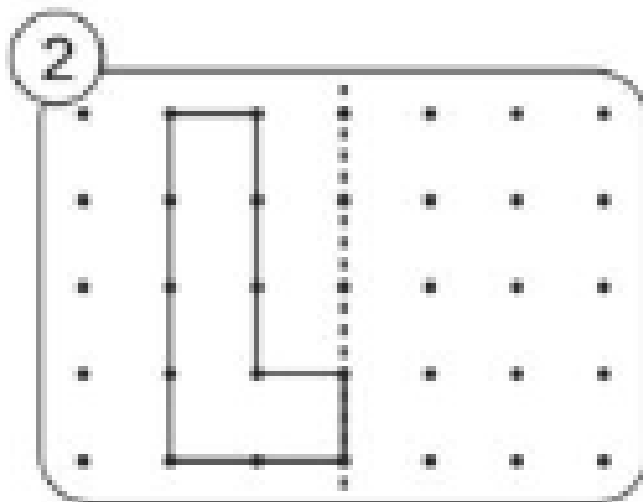
**Line of Symmetry** – a            that            a shape exactly in           

**Ex:**

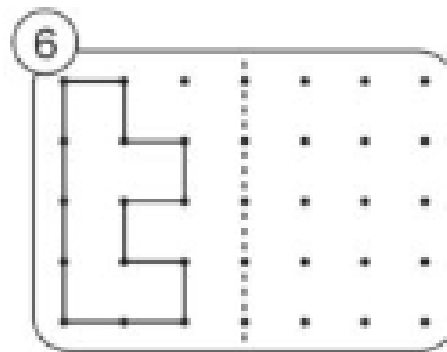
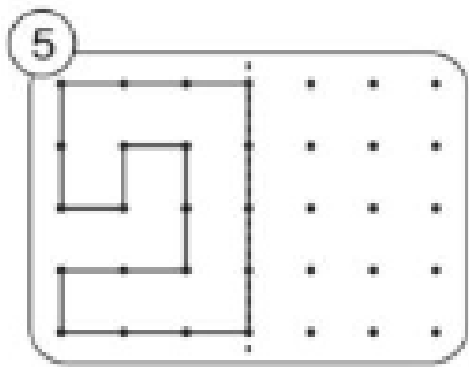
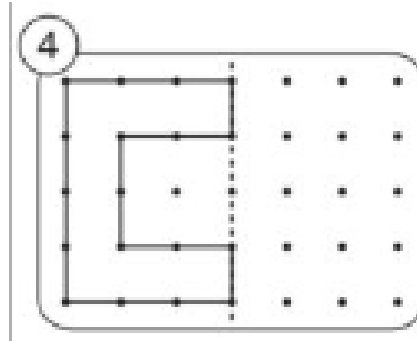
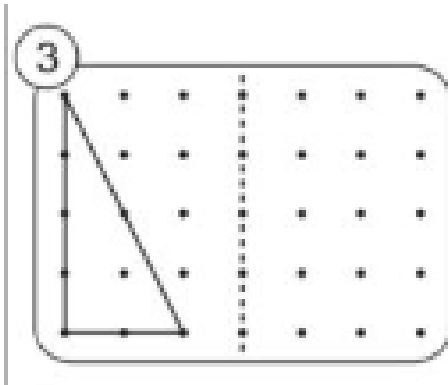


## Input Activity

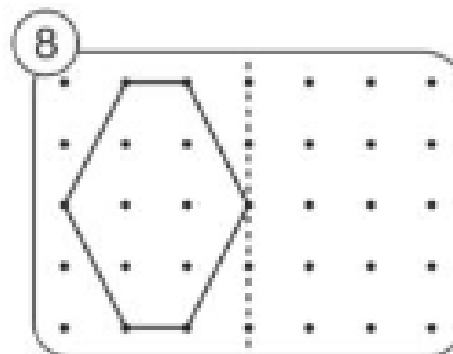
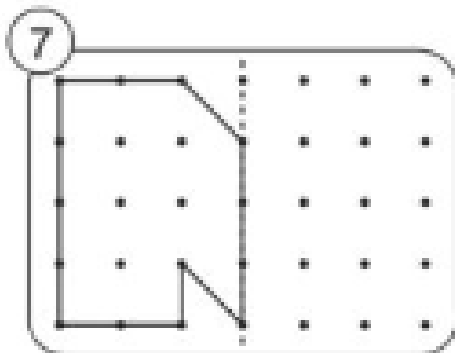
### Problem 1



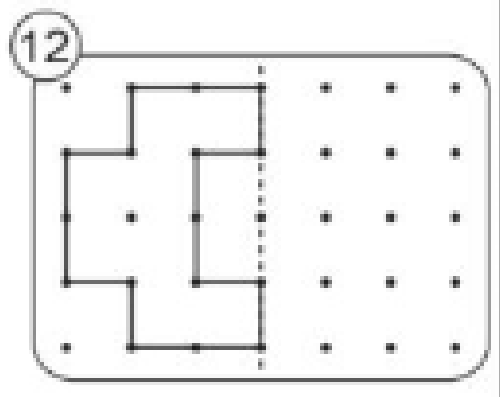
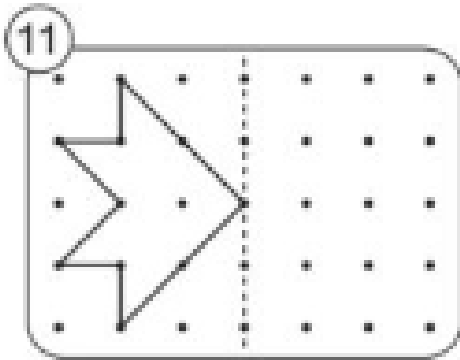
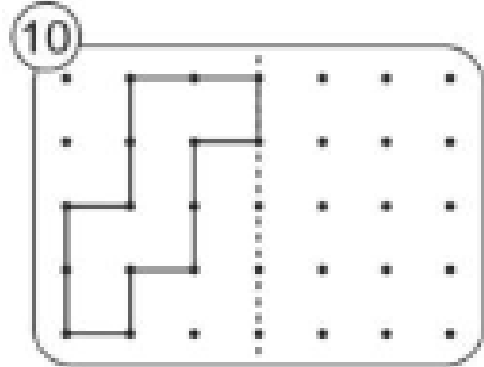
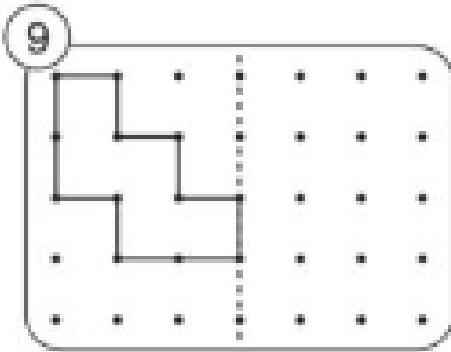
**Problem 2:**



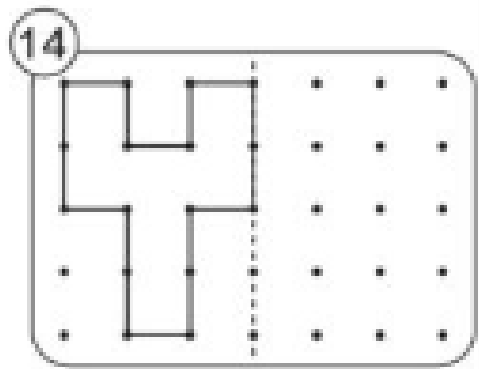
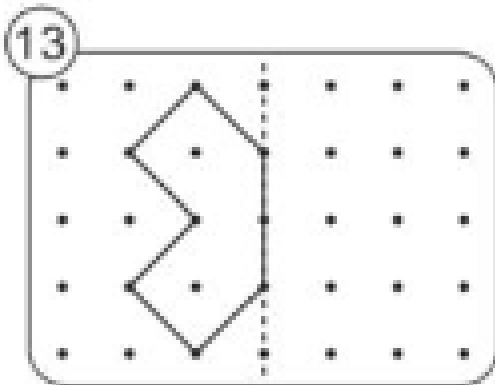
**Problem 3:**



**Problem 4:**

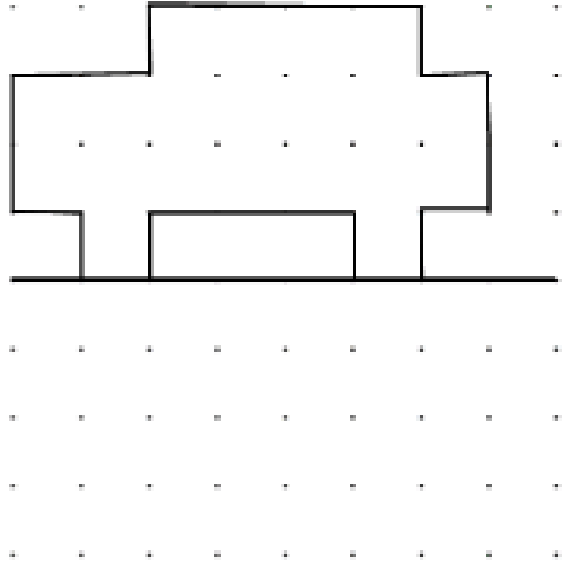
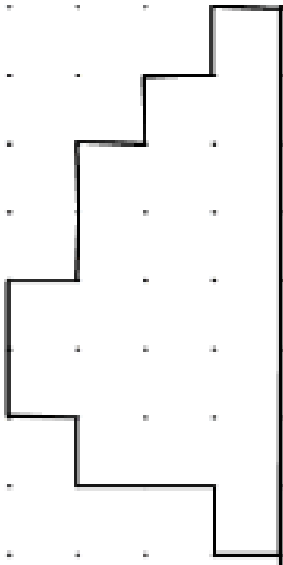


**Problem 5:**



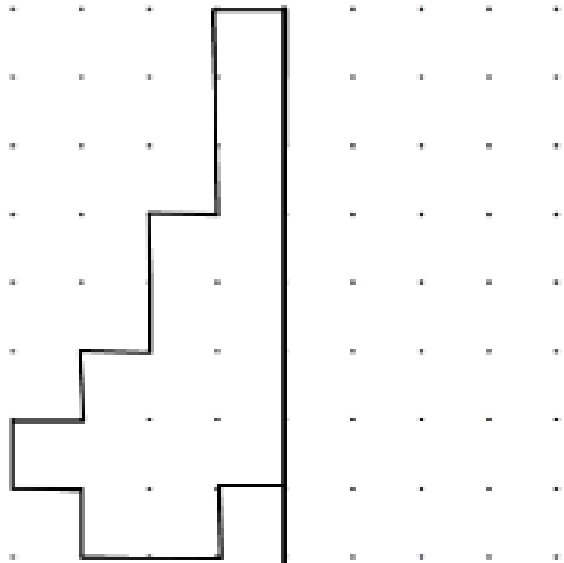
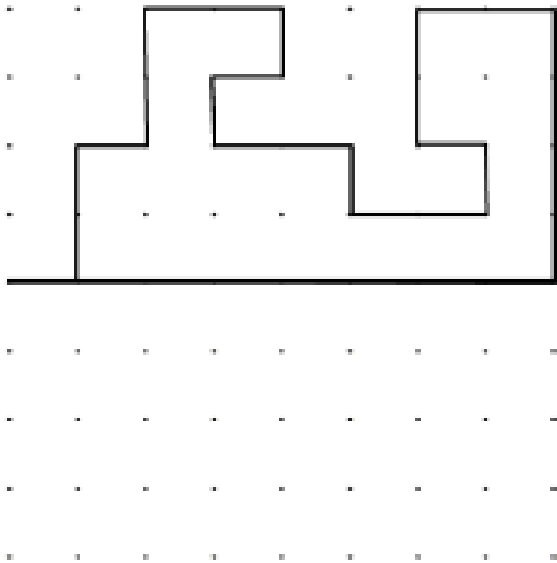
### Problem Set:

Complete the missing half of each of the shapes using the mirror lines.



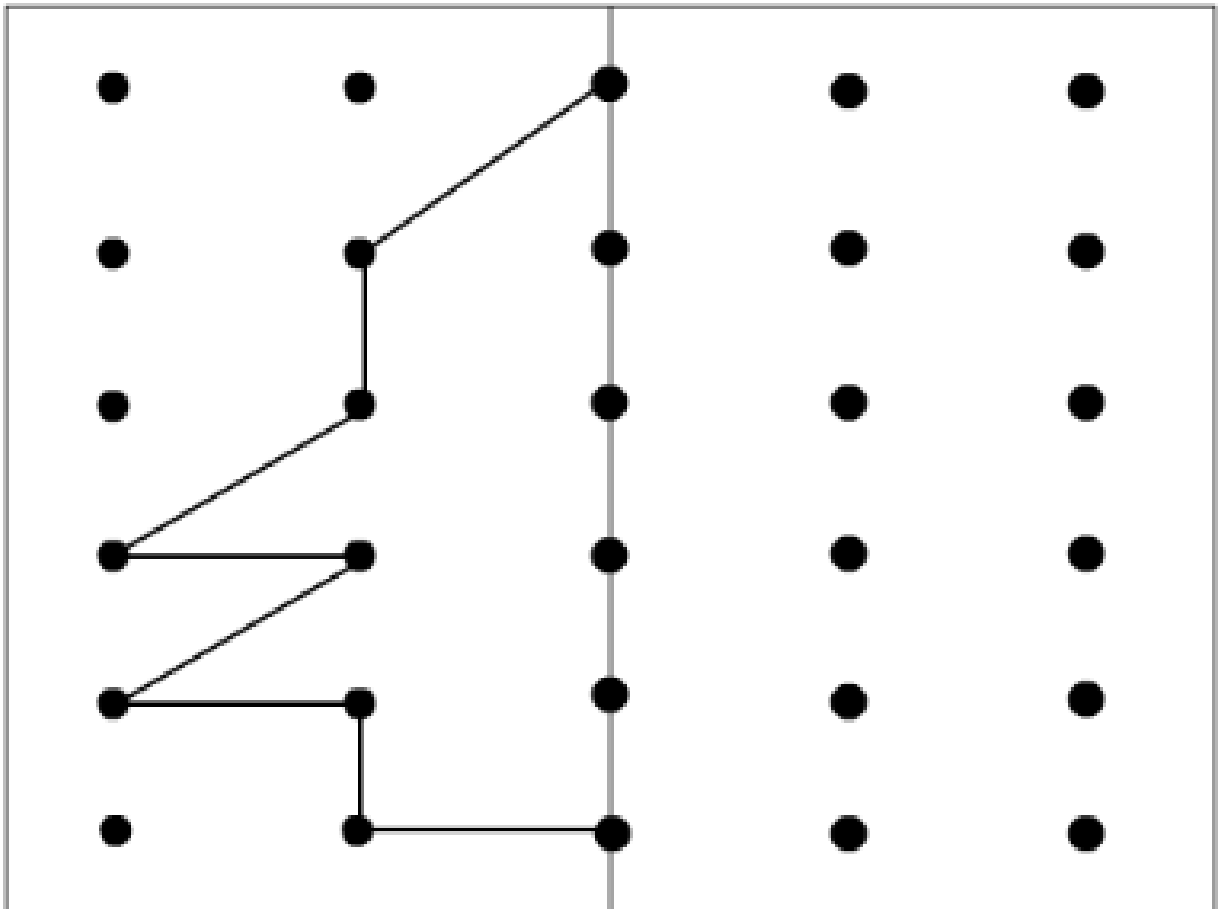
### Application Problem

Complete the missing half of each of the shapes using the mirror lines.



Exit Ticket:

Complete the missing pattern.

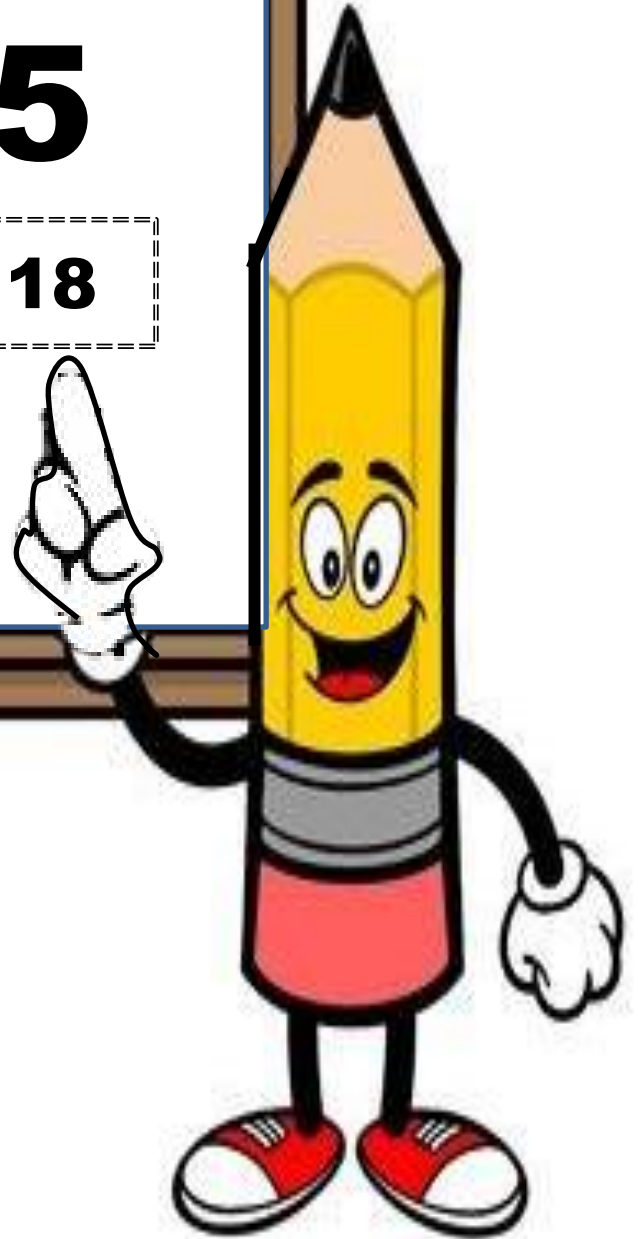




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# **Day # 5**

**Mod 6 Packet 18**



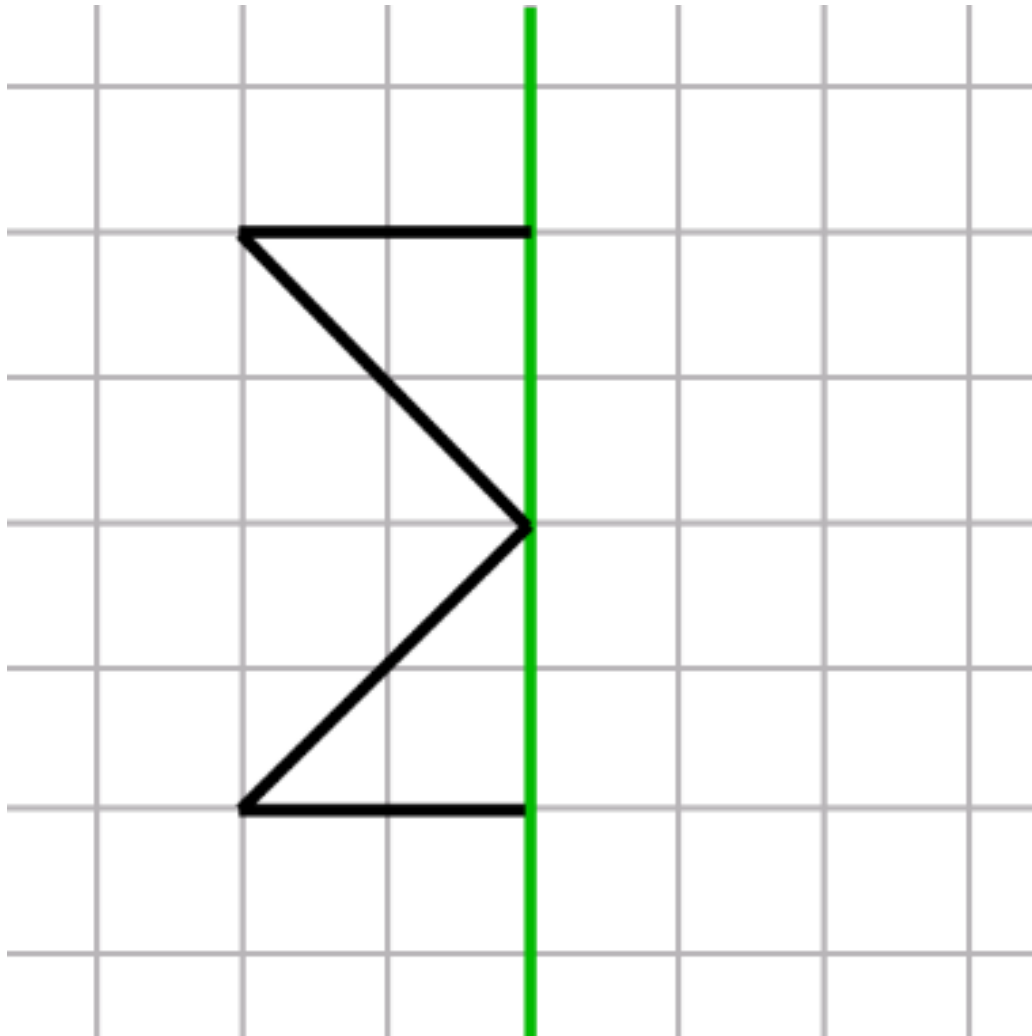
Name: \_\_\_\_\_ Week 36 Day 5 Date: \_\_\_\_\_

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### Do Now

Complete the symmetry on the following grid.



## Input Activity

### Problem 1:

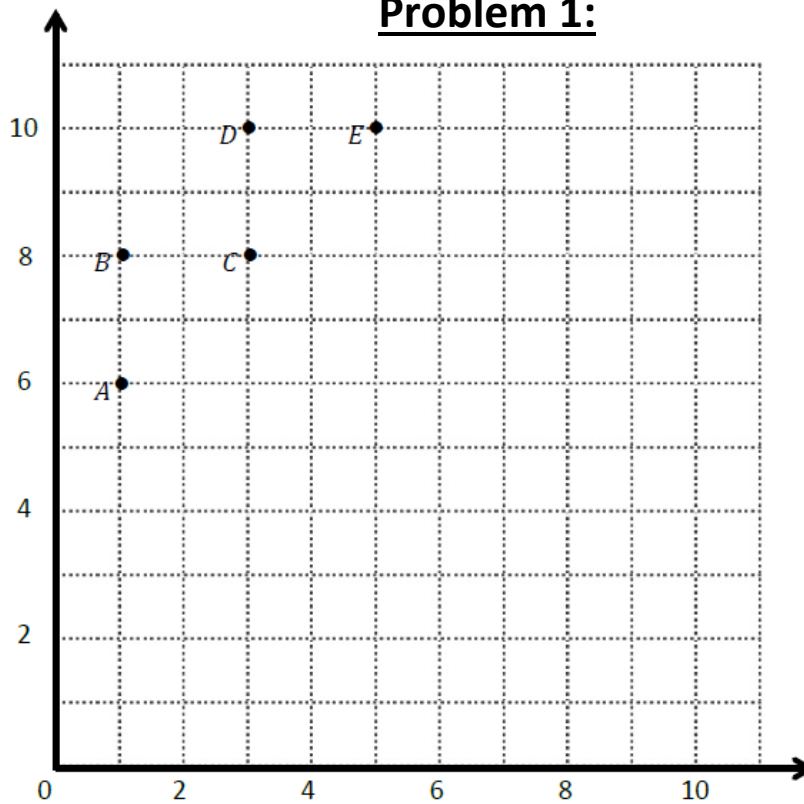


Table A

Point	(x, y)
A	
B	
C	
D	
E	

Table B

Point	(x, y)
I	
H	
G	
F	

1. Record the coordinates of points A through E in Table A.
2. Use your ruler to connect these points in alphabetical order.
3. Use your ruler to construct a line of symmetry, labeled L, whose rule is ***x is always 5***.
4. Let's make a reflective symmetric shape to the right of the line.
5. Fill out Table B.
6. Use your ruler to connect points I-F in alphabetical order.



## Problem 2:

1. Let's create a new line of symmetry. Use your ruler to construct a horizontal line, labeled M, whose rule is **y is always 6**.
2. Let's complete the drawing and create a figure that is symmetric about line M.
3. Plot and record the coordinates of each symmetric point in Tables C and D.
4. Use your ruler to connect the points you plotted to draw the symmetric figure.
5. Compare the coordinates in Tables A and B with their symmetric point in Tables C and D. What do you notice about points when they are symmetric about a horizontal line?

**Table C**

$(x, y)$

**Table D**

$(x, y)$

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### Problem 4:

Use the plane below to complete the following tasks.

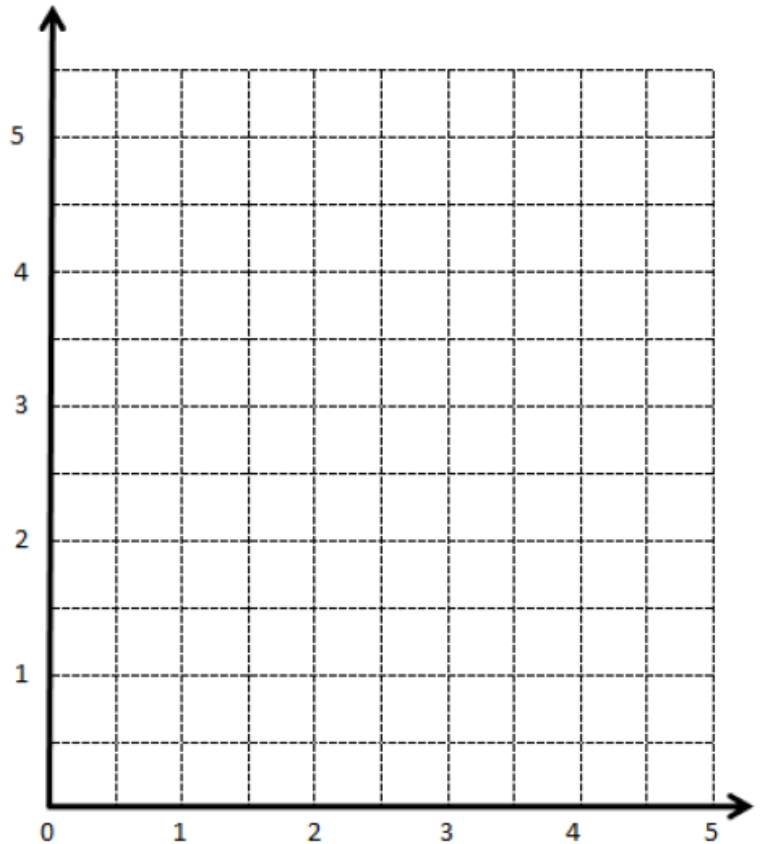
- Draw a line  $u$  whose rule is  $y$  is equal to  $1\frac{1}{2}$
- Construct a figure with a total of 6 points, all on the same side of the line.
- Record the coordinates of each point, in the order in which they were drawn, in Table A.

Table A

$(x, y)$

Table B

$(x, y)$



Complete the drawing to create a figure that is symmetric about  $u$ . For each point in Table A, record the corresponding point on the other side of the line of symmetry in Table B.

### Problem Set:

Use the plane to the right to complete the following tasks.

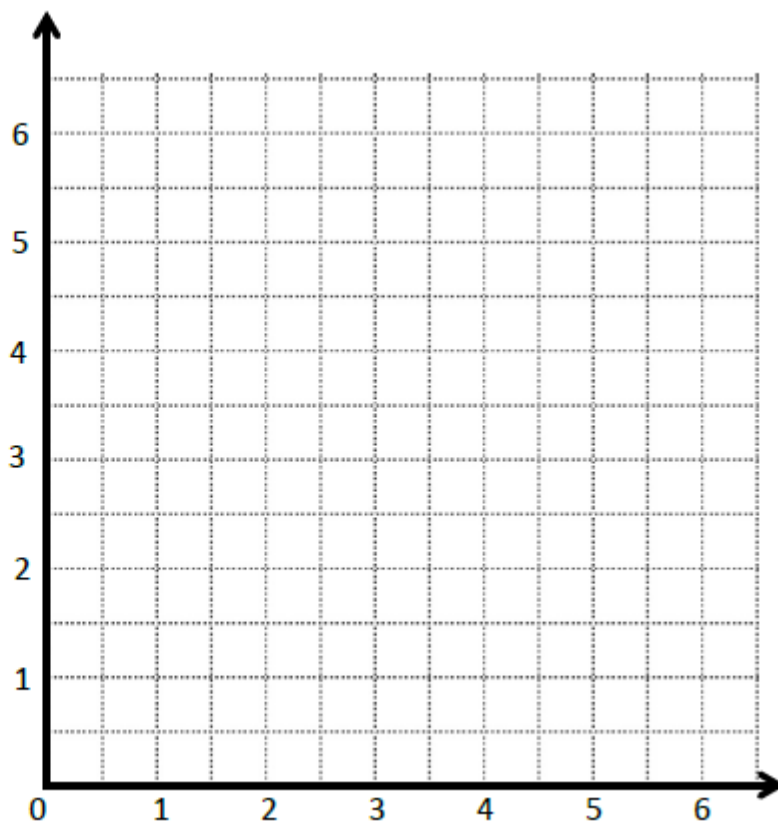
- Draw a line  $p$  whose rule is,  $x$  is equal to  $y$ .
- Plot the points from Table A on the grid in order. Then, draw line segments to connect the points.

Table A

$(x, y)$
$(\frac{1}{2}, \frac{1}{2})$
$(1, 2)$
$(1\frac{1}{2}, 1\frac{1}{2})$
$(2, 4)$
$(3\frac{1}{2}, 3\frac{1}{2})$
$(4, 4\frac{1}{2})$
$(5, 5)$

Table B

$(x, y)$



Complete the drawing to create a figure that is symmetric about line  $p$ . For each point in Table A, record the symmetric point on the other side of the line  $p$  in Table B.

d. Compare the  $y$ -coordinates in Table A with those in Table B. What do you notice? \_\_\_\_\_

e. Compare the  $x$ -coordinates in Table A with those in Table B. What do you notice? \_\_\_\_\_

## Application Problem:

1. Use the plane to the right to complete the following tasks.

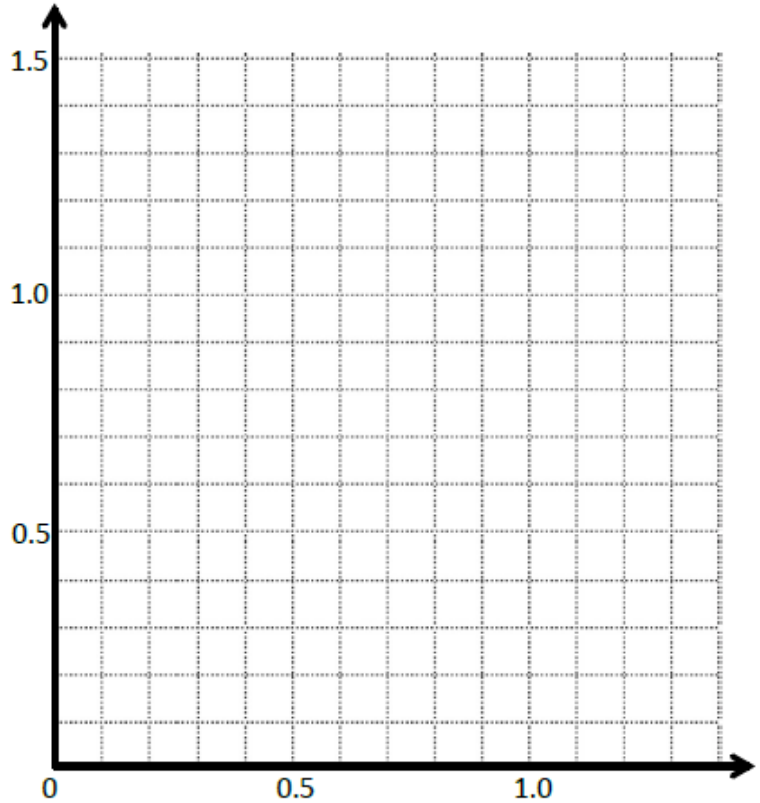
- a. Draw a line  $t$  whose rule is  $y$  is always  $0.7$ .
- b. Plot the points from Table A on the grid in order. Then, draw line segments to connect the points.

**Table A**

$(x, y)$
(0.1, 0.5)
(0.2, 0.3)
(0.3, 0.5)
(0.5, 0.1)
(0.6, 0.2)
(0.8, 0.2)
(0.9, 0.1)
(1.1, 0.5)
(1.2, 0.3)
(1.3, 0.5)

**Table B**

$(x, y)$



Complete the drawing to create a figure that is symmetric about line  $t$ . For each point in Table A, record the corresponding point on the other side of the line of symmetry in Table B.

d. Compare the  $y$ -coordinates in Table A with those in Table B. What do you notice?

e. Compare the  $x$ -coordinates in Table A with those in Table B. What do you notice?

2. This figure has a second line of symmetry. Draw the line on the plane, and write the rule for this line.

## Exit Ticket:

Kenny plotted the following pairs of points and said they made a symmetric figure about a line with the rule:

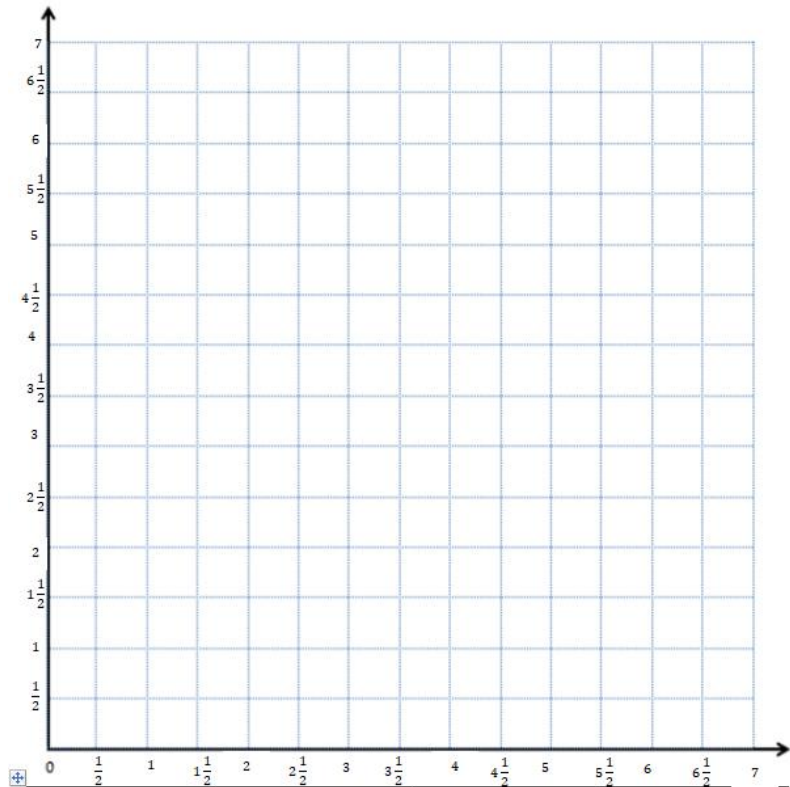
**y is always 4**

(3, 2) and (3, 6)

(4, 3) and (5, 5)

(5, 1) and (5, 7)

(7,  $1\frac{1}{2}$ ) and (7,  $6\frac{1}{2}$ )



Is his figure symmetrical about the line?

How do you know?