Are you ready to

Mission 6

The Coordinate Plane

Name:_____

Printed in the U.S.A.

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Fourth Edition

Name:______________________________

Weekly Goal Tracker

Week of:	My goal is to earn badges for lessons: ____ ____ ____ ____	Teacher Signature:
Week of:	My goal is to earn badges for lessons: ____ ____ ____ ____	Teacher Signature:
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Name:____

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Week of:	My goal is to earn badges for lessons: _____ _____ _____ _____	Teacher Signature:
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Week of:	My goal is to earn badges for lessons: _____ _____ _____ _____	Teacher Signature:
Week of:	My goal is to earn badges for lessons: _____ _____ _____ _____	Teacher Signature:
Week of:	My goal is to earn badges for lessons: _____ _____ _____ _____	Teacher Signature:

Name:_____

Mission 6: Workbook Checklist

1. Cool Coordinates Date:_____ Teacher Signature:_____

Learning Lab: ○ **Exit Ticket**

2. Coordinate Pairs Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

3. Star Coordinates Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

5. Lining Up Date:_____ Teacher Signature:_____

Learning Lab: ○ **Exit Ticket**

6. Coordinate Plane Puzzles Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

7. That's the Point Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

8. Plot the Rule Date:_____ Teacher Signature:_____

Learning Lab: ○ **Exit Ticket**

9. Lasers on a Plane Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

10. Lines with Sparkle Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

14. Pairs and Parallels Date:_____ Teacher Signature:_____

Math Chat: ○ **Notes** ○ **Exit Ticket**

15. Perpendicular Pals	Date:_____	Teacher Signature:_____	
Learning Lab:			**O Exit Ticket**
18. Stellar Symmetry	Date:_____	Teacher Signature:_____	
Learning Lab:			**O Exit Ticket**
19. Line Graph Greatness	Date:_____	Teacher Signature:_____	
Math Chat:			**O Exit Ticket**
20. Line Graphs Return	Date:_____	Teacher Signature:_____	
Math Chat:	**O Notes**		**O Exit Ticket**
21. Perplexing Problems: Part 1	Date:_____	Teacher Signature:_____	
Z-Squad:	**O Notes**		
22. Perplexing Problems: Part 2	Date:_____	Teacher Signature:_____	
Z-Squad:	**O Notes**		
23. Perplexing Problems: Part 3	Date:_____	Teacher Signature:_____	
Z-Squad:	**O Notes**		
24. Perplexing Problems: Part 4	Date:_____	Teacher Signature:_____	
Z-Squad:	**O Notes**		
26. Far out Expressions	Date:_____	Teacher Signature:_____	
Learning Lab:			**O Reflection**
27. Word Problem Wheel	Date:_____	Teacher Signature:_____	
Learning Lab:			**O Reflection**
28. Fluency Round Up	Date:_____	Teacher Signature:_____	
Math Chat:	**O Notes**		**O Reflection**

Note: There are no Exit Tickets for Lessons 21, 22, 23, and 24.

29. Geometry Carnival Date:_____ Teacher Signature:_____

Learning Lab: ○ **Reflection**

30. Geometry Carnival Returns Date:_____ Teacher Signature:_____

Learning Lab: ○ **Reflection**

32. Zearnland Savings Date:_____ Teacher Signature:_____

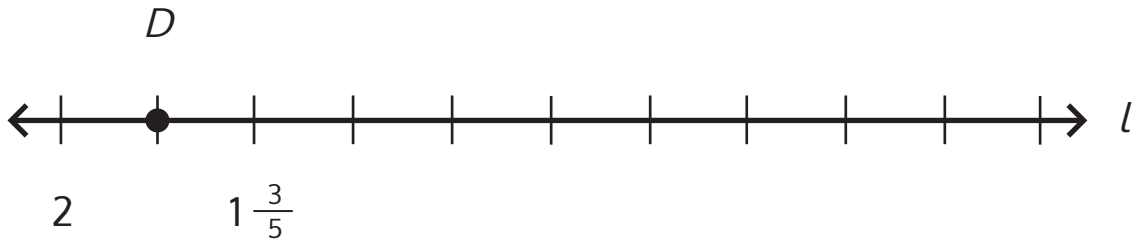
Math Chat: ○ **Notes** ○ **Reflection**

Lesson 1 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Use number line l to answer the questions.



a. Plot point C so that its distance from the origin is 1.

b. Plot point E $\frac{4}{5}$ closer to the origin than C. What is its coordinate? _____

c. Plot a point at the midpoint of C and E. Label it H.

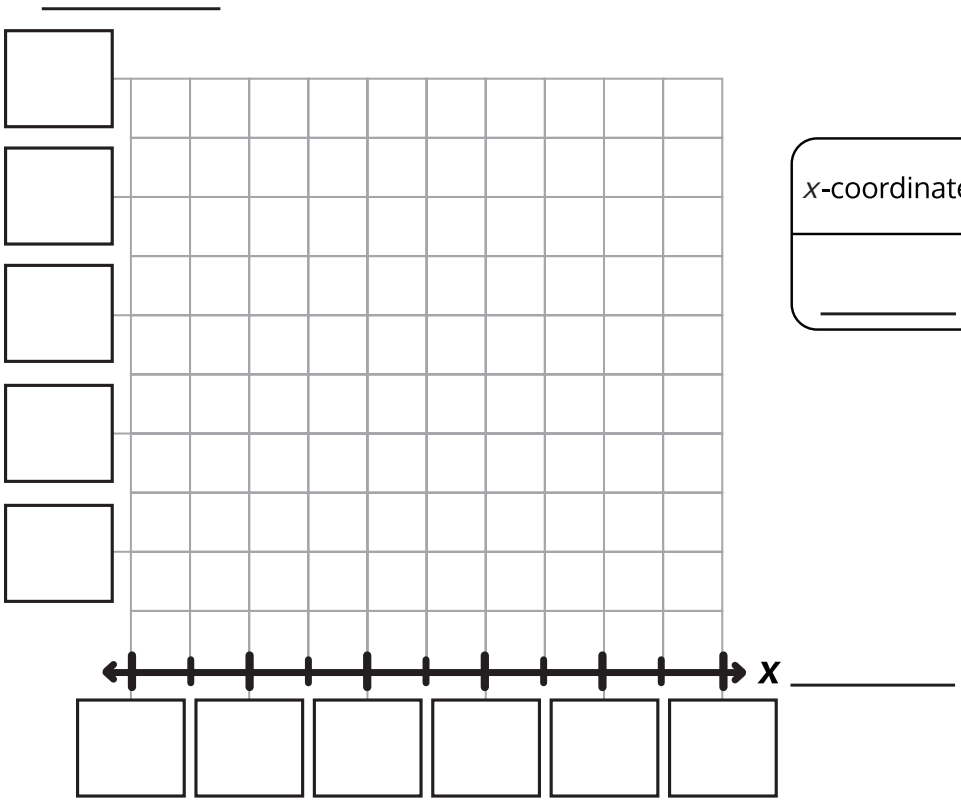
Lesson 2 G:5 M:6	Coordinate Pairs
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need a ruler or straight edge for this lesson.

1 We'll plot point *A* and set up the coordinate plane. Then we'll plot point *B*.



x-coordinate	*y*-coordinate

2 Plot point *C* at (3, 4), in the above coordinate plane.

EXTRA WORKSPACE

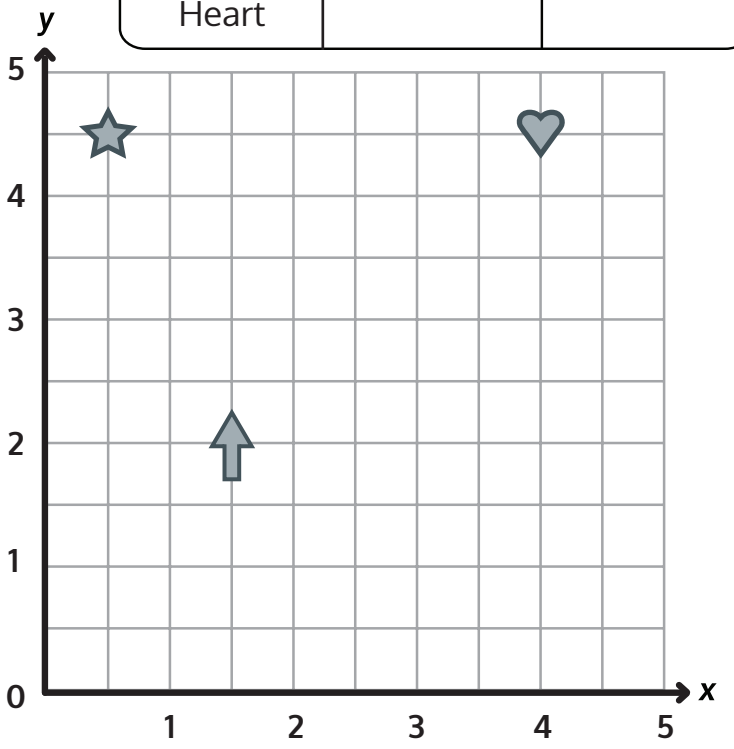
Lesson 2 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Name the coordinates of the shapes below.

Shape	*x*-coordinate	*y*-coordinate
Star		
Arrow		
Heart		



2. Plot a square at (3 , $3\frac{1}{2}$).

3. Plot a triangle at ($4\frac{1}{2}$, 1).

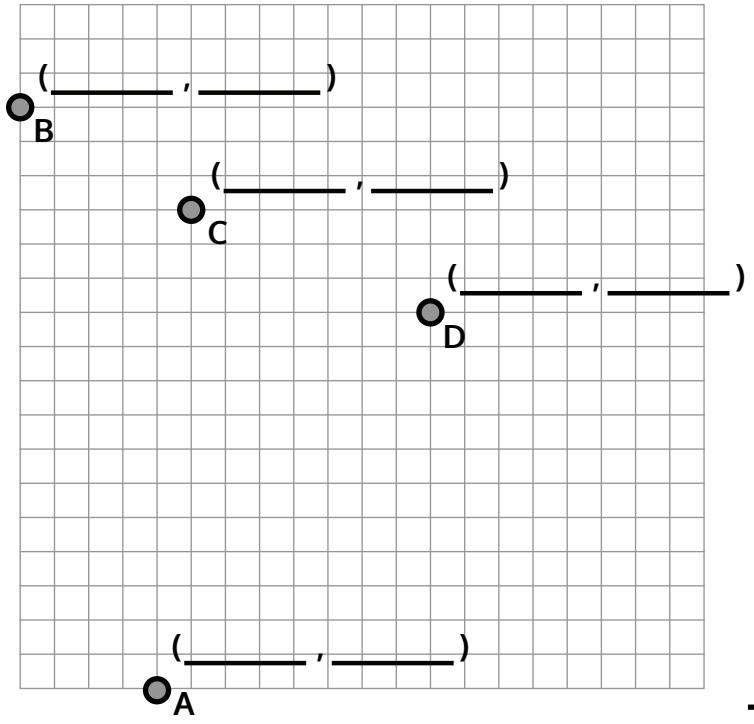
Lesson 3 G:5 M:6	Star Coordinates
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need a ruler or straight edge for this lesson.

1 Set up the coordinate plane. Write the coordinate pairs for points *A*, *B*, *C*, and *D*.



2 Plot point *E* at $(4, 2\frac{3}{4})$ in the above coordinate plane.

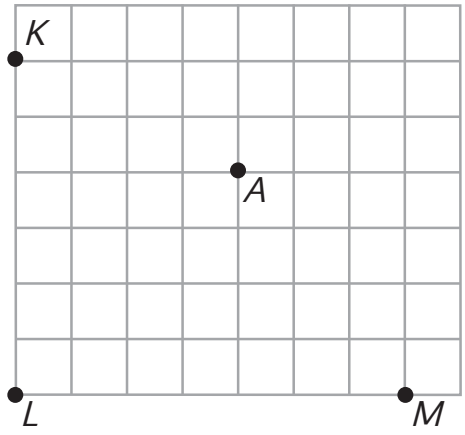
EXTRA WORKSPACE

Lesson 3 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Use a ruler on the grid below to construct the axes for a coordinate plane. The *x*-axis should intersect points *L* and *M*. Construct the *y*-axis so that it contains points *K* and *L*. Label each axis.



   a. Place a hash mark on each grid line on the *x*- and *y*-axis.

   b. Label each hash mark so that *A* is located at (1 , 1).

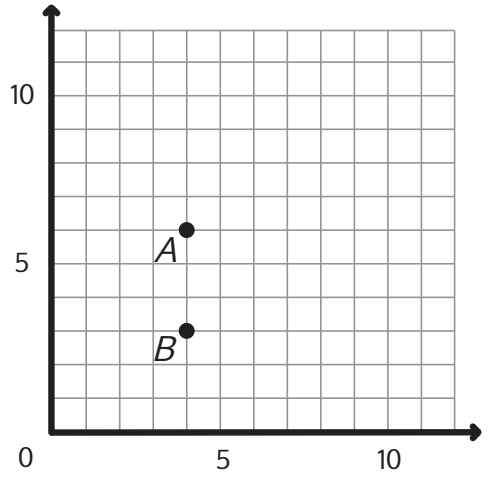
   c. Plot the following points:

Point	*x*-coordinate	*y*-coordinate
B	$\frac{1}{4}$	0
C	$1\frac{1}{4}$	$\frac{3}{4}$

Lesson 5 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____



1. Use a straight edge to construct a line that goes through points *A* and *B*. Label the line *l*.

2. Which axis is parallel to line *l*? _____

   Which axis is perpendicular to line *l*? _____

3. Plot two more points on line *l*. Name them *C* and *D*.

4. Give the coordinates of each point below

   A: _____ *B*: _____

   C: _____ *D*: _____

5. Give the coordinates of another point that falls on line *l* with a *y*-coordinate greater than 20. _____

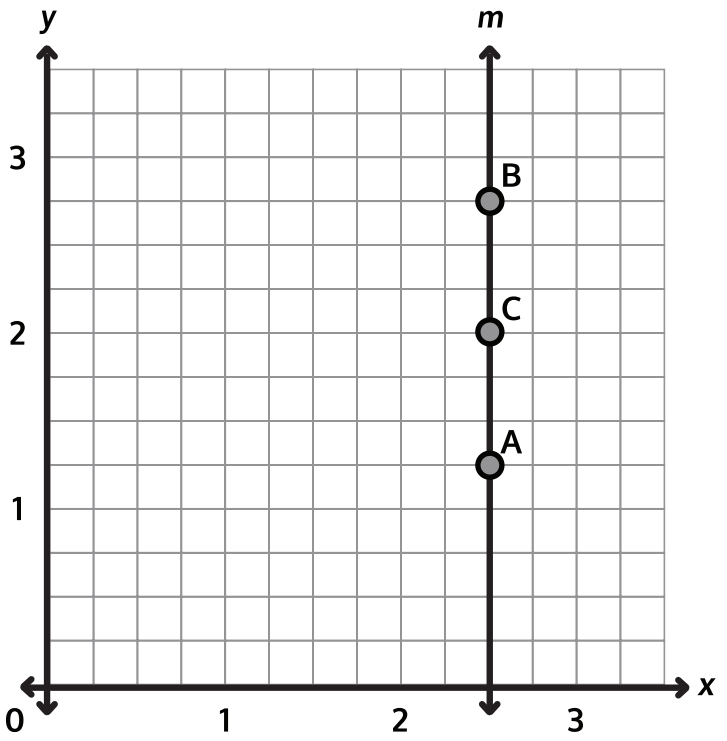
Lesson 6 G:5 M:6	Coordinate Plane Puzzles
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need a ruler or straight edge for this lesson.

1 Plot and label points and lines on the coordinate plane.



Point	x	y	(x, y)
A	$2\frac{1}{2}$	$1\frac{1}{4}$	
B			
C			

Point	x	y	(x, y)
D			
E			
F			

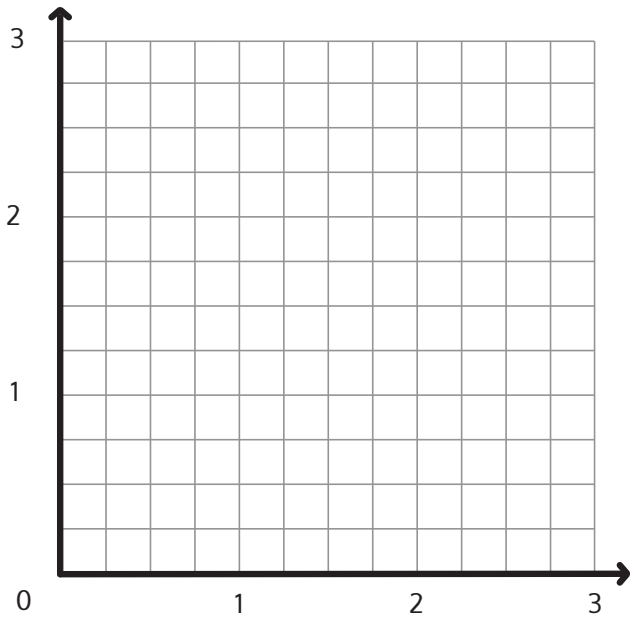
EXTRA WORKSPACE

Lesson 6 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You'll need two colored pencils for this exit ticket.



1. Plot the point $H\left(2\frac{1}{2}, 1\frac{1}{2}\right)$.
2. Line l passes through point H and is parallel to the y-axis. Construct line l.
3. Construct line m such that the y-coordinate of every point is $\frac{3}{4}$.
4. Line m is _____ units from the x-axis.
5. Give the coordinates of the point on line m that is $\frac{1}{2}$ unit from the y-axis.

6. With one colored pencil, shade the portion of the plane that is less than $\frac{3}{4}$ unit from the *x*-axis.

7. With another colored pencil, shade the portion of the plane that is less than $2\frac{1}{2}$ units from the *y*-axis.

8. Plot a point that lies in the double shaded region. Give the coordinates of the point.

Lesson 7 G:5 M:6	That's the Point
	ZEARN STUDENT NOTES

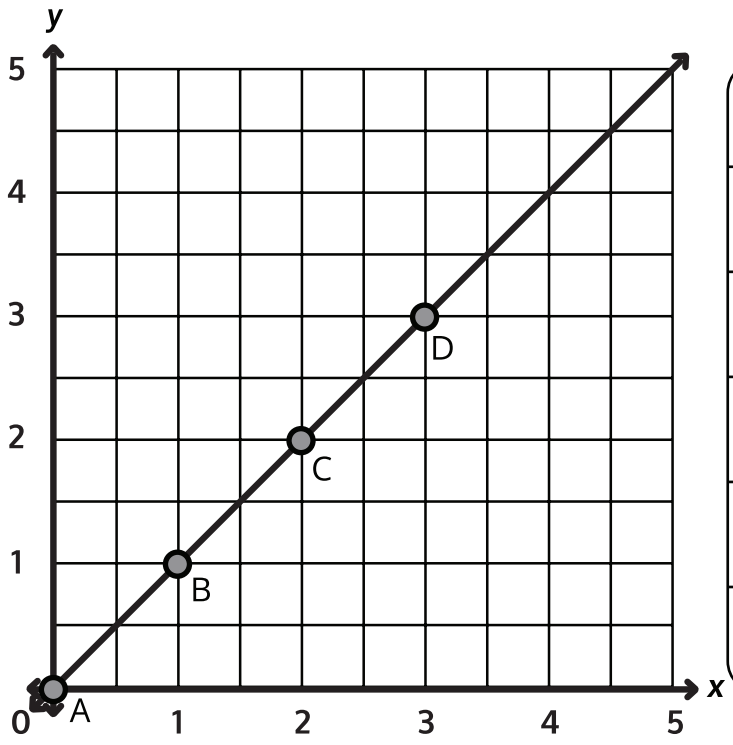
Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need a ruler or straight edge for this lesson.

1 Plot the points on the coordinate plane.

Then, write a rule to describe any point on the line.



Point	(x , y)
G	(0 , 3)
H	$(\frac{1}{2}, 3\frac{1}{2})$
I	(1 , 4)
J	$(1\frac{1}{2}, 4\frac{1}{2})$
K	(_____, _____)

Rule: _____

EXTRA WORKSPACE

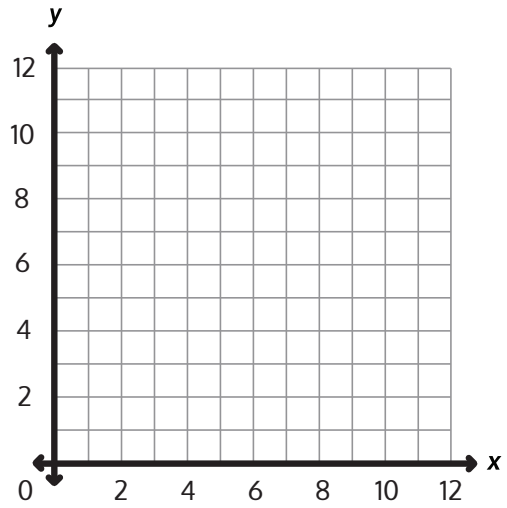
Lesson 7 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Complete the chart. Then, plot the points on the coordinate plane.

x	y	(x, y)
0	4	
2	6	
3	7	
7	11	



1. Use a straight edge to draw a line connecting these points.
2. Write a rule to show the relationship between the x- and y-coordinates for points on the line.

_____

_____

3. Name two other points that are also on this line.

_____ _____

Lesson 8 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

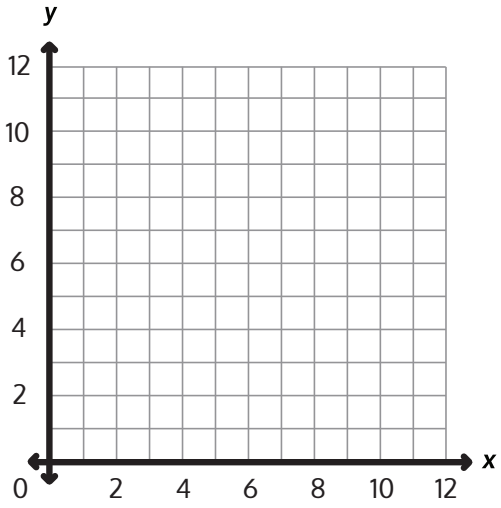
1. Complete this table with values for *y* such that each *y*-coordinate is 5 more than 2 times as much as its corresponding *x*-coordinate.

   a. Plot each point on the coordinate plane.

   b. Use a straight edge to draw a line connecting these points.

   c. Name 2 other points that fall on this line with *y*-coordinates greater than 25.

x	*y*	(*x* , *y*)
0		
2		
3.5		



Lesson 9 G:5 M:6	Lasers on a Plane
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need a ruler or straight edge for this lesson.

1 Complete the table with coordinates that follow each line's rule. Then, plot each line on the coordinate plane.

Line *p*

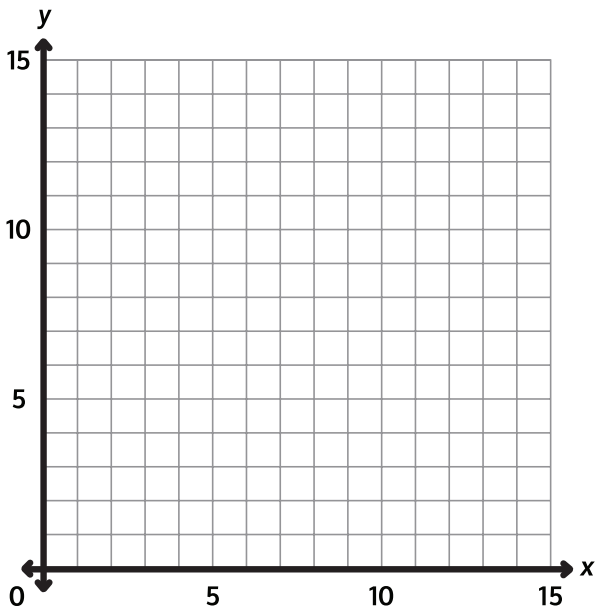
Rule: *y* is *x* times 2

x	*y*	(*x* , *y*)
0		
2		
4		

Line *q*

Rule: *y* is *x* times 3

x	*y*	(*x* , *y*)
0		
2		
4		



EXTRA WORKSPACE

Lesson 9 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Complete the table for the given rules.

   Then, construct lines l and m on the coordinate plane.

Line l

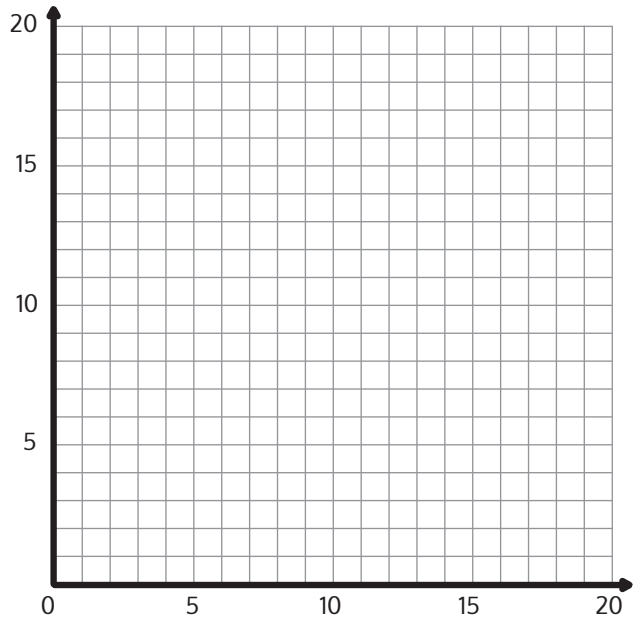
Rule: y *is 5 more than* x

x	y	(x, y)
0		
1		
2		
4		

Line m

Rule: y *is 5 times as much as* x

x	y	(x, y)
0		
1		
2		
4		



Lesson 10 G:5 M:6	Lines with Sparkle
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need a ruler or straight edge for this lesson.

1 Plot points to draw each line. Then, write a rule for each line to describe its coordinates.

Line *g*

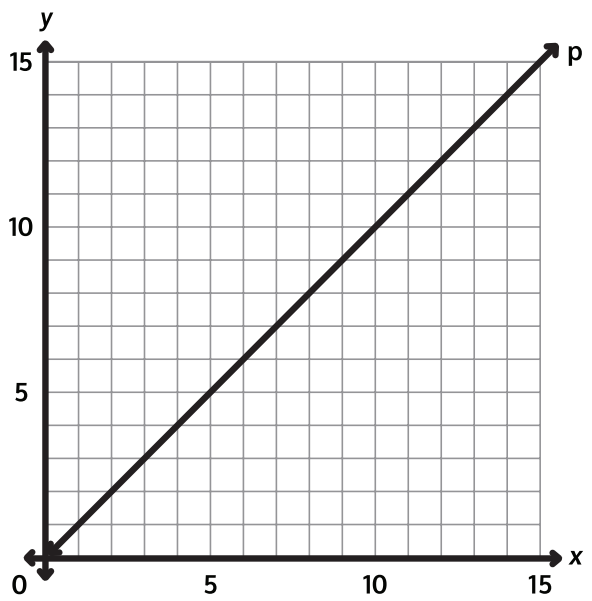
Rule: _____

x	y	(x, y)
1		
2		
5		

Line *h*

Rule: _____

x	y	(x, y)
3		
6		
12		



EXTRA WORKSPACE

Lesson 10 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

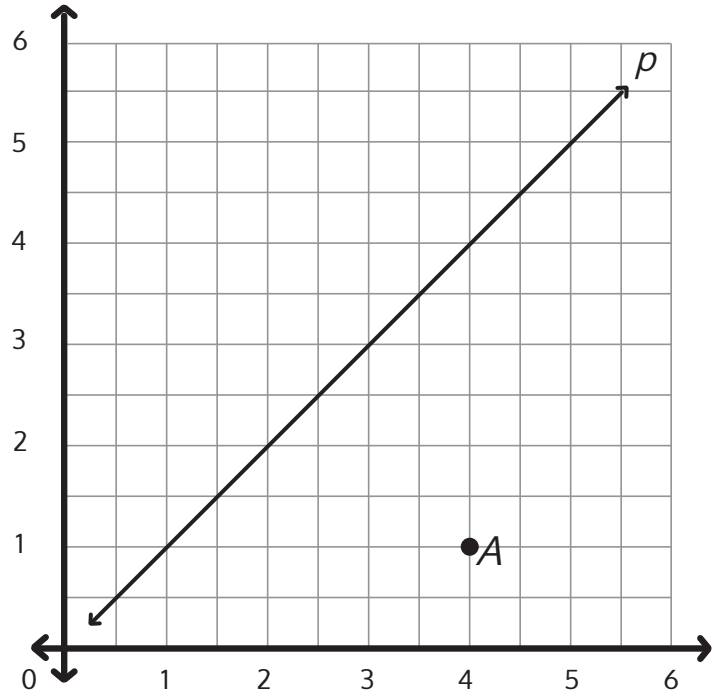
1. Use the coordinate plane below to complete the following tasks.

   a. Line *p* represents the rule x *and* y *are equal*.

   b. Construct a line, *a*, that is parallel to line *p* and contains point *A*.

   c. Name 3 points on line *a*.

   d. Identify a rule to describe line *a*.



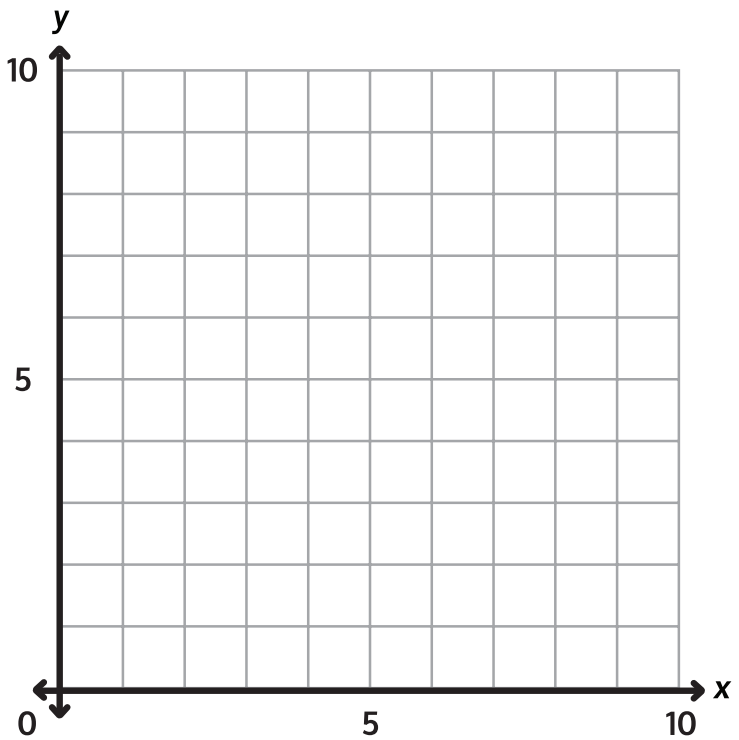
Lesson 14 G:5 M:6	Pairs and Parallels
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

You will need scissors and a ruler or straight edge for this lesson.

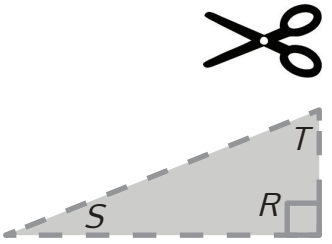
1 Use the triangle to draw parallel lines.



A: (2 , 3) *B*: (7 , 5)

S: (_____ , _____) *T*: (_____ , _____)

_____



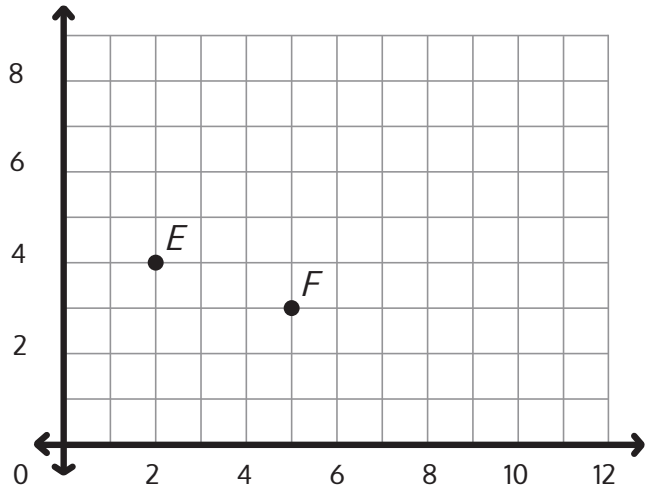
EXTRA WORKSPACE

Lesson 14 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. 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* : (_____ , _____)

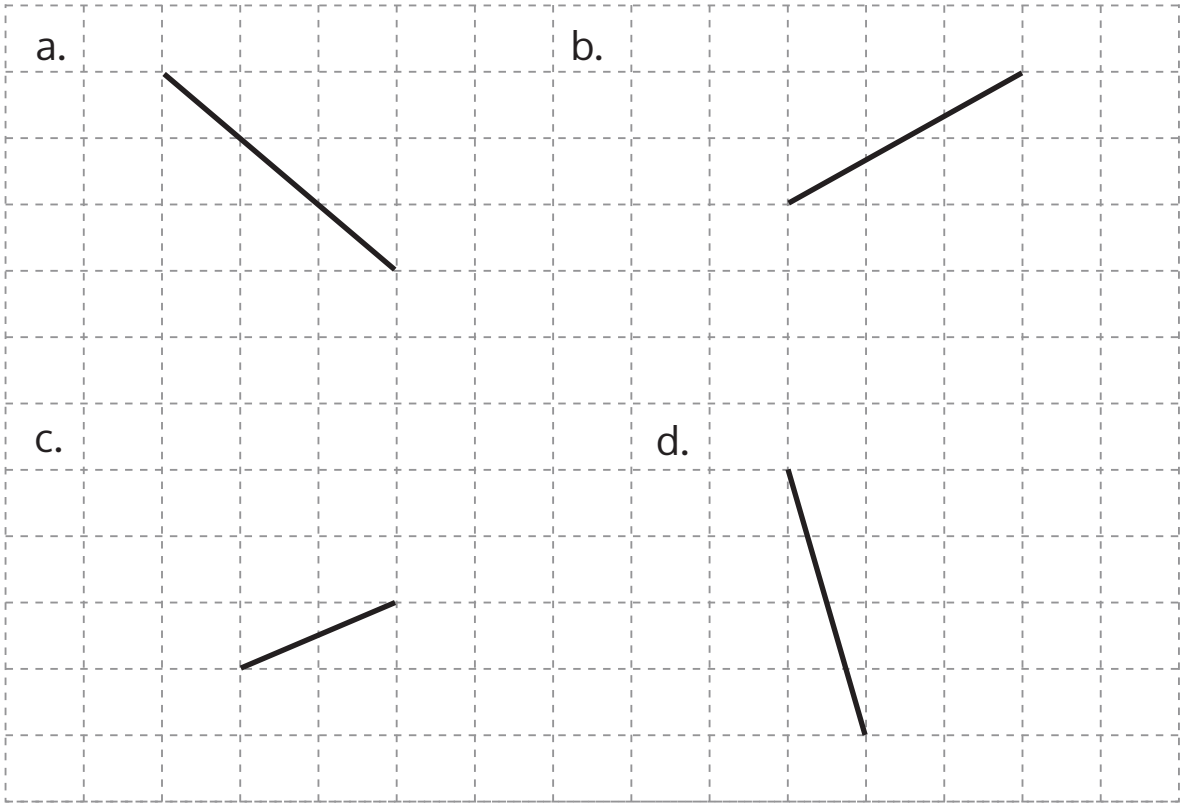
   d. Draw $\overleftrightarrow{LM}$.

Lesson 15 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

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



Lesson 18 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. 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 , $\frac{3}{4}$) and (5 , $7\frac{1}{4}$)
   (7 , $1\frac{1}{2}$) and (7 , $6\frac{1}{2}$)

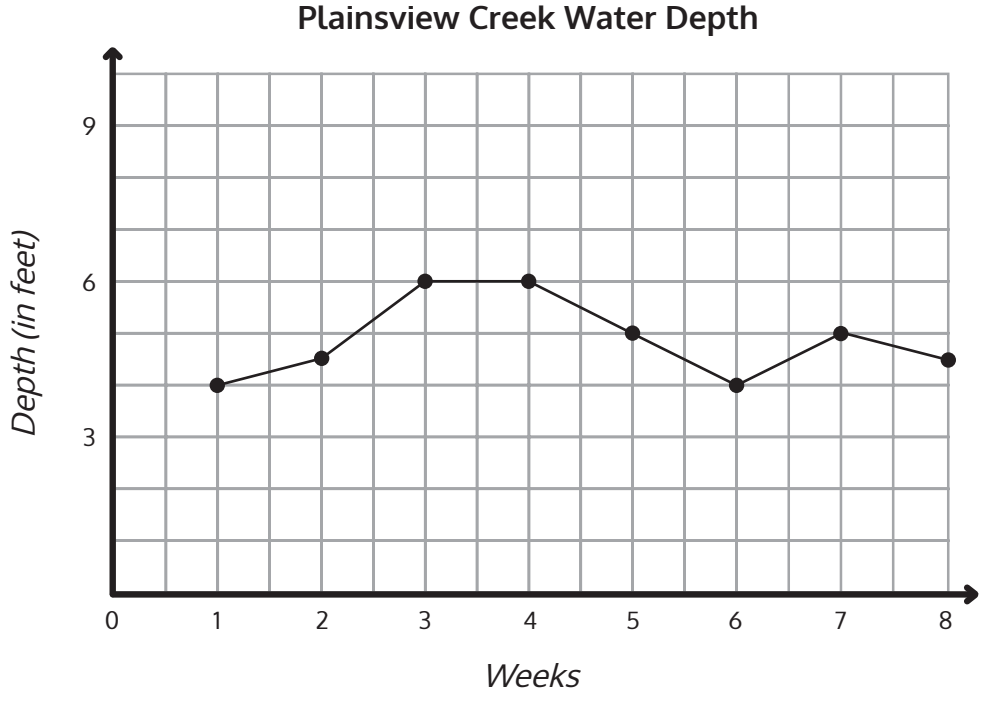
   Is his figure symmetrical about the line? How do you know?

Lesson 19 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. The line graph below tracks the water level of Plainsview Creek, measured each Sunday, for 8 weeks. Use the information in the graph to answer the questions that follow.



   a. About how many feet deep was the creek in Week 1? _____

   b. According to the graph, which week had the greatest change in water depth? _____

c. It rained hard throughout the sixth week. During what other weeks might it have rained? Explain why you think so.

d. What might have been another cause leading to an increase in the depth of the creek?

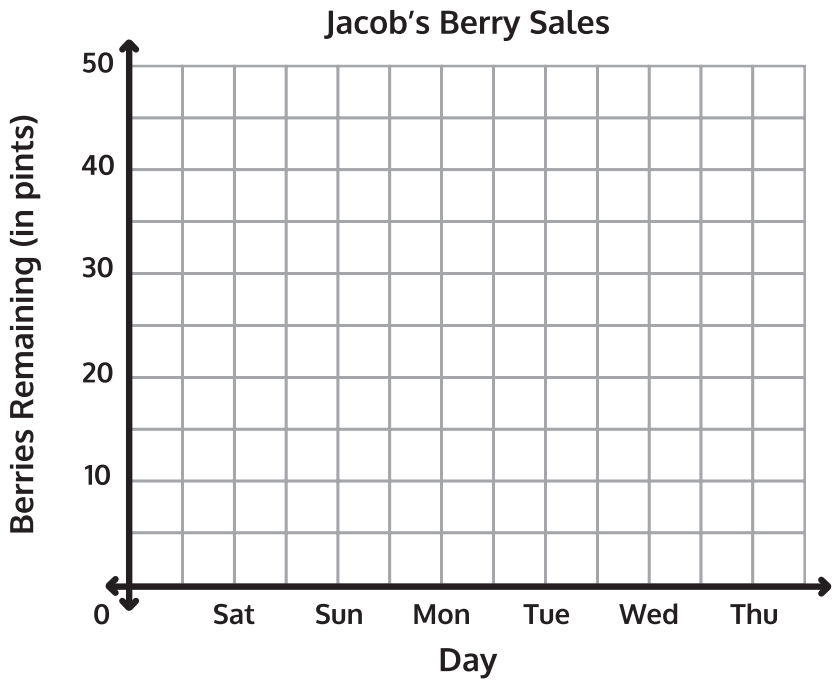
Lesson 20 G:5 M:6	Line Graphs Return
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 Use the following information to complete the line graph below. Record the number of berries that remain unsold at the end of each day.

Jacob sells berries at a fruit stand. When Jacob arrived at his fruit stand on Saturday, he had 57 pints of berries to sell. By end of day Saturday, he had 50 pints of berries remaining. By the end of the day on Sunday, he had 45 pints remaining. By end of day Monday, he had 35 pints left. By end of day Tuesday, Jacob had 25 pints remaining. By end of day Wednesday, he had 10 pints remaining. When he closed his stand on Thursday, there were 5 pints left.



EXTRA WORKSPACE

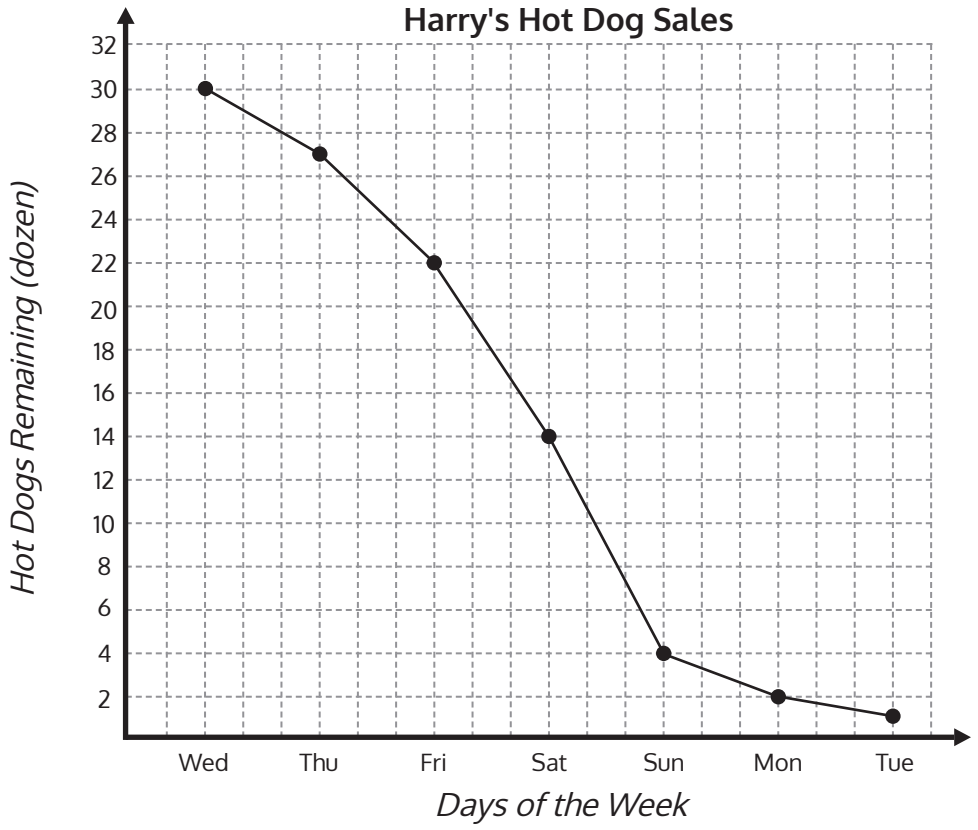
Lesson 20 G:5 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Use the following information to complete the line graph below. Then, answer the questions that follow.

   Harry runs a hot dog stand at the county fair. When he arrived on Wednesday, he had 38 dozen hot dogs for his stand. The graph shows the number of hot dogs (in dozens) that remained unsold at the end of each day of sales.



a. How many dozen hot dogs did Harry sell on Wednesday? How do you know?

b. Between which two-day period did the number of hot dogs sold change the most? Explain how you determined your answer.

c. During which three days did Harry sell the most hot dogs?

d. How many dozen hot dogs were sold on these three days?

Lesson 21 G:5 M:6	Perplexing Problems: Part 1
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Pierre folded a square piece of paper vertically to make two rectangles. Each rectangle had a perimeter of 39 inches.

How long is each side of the original square? What is the area of the original square? What is the area of one of the rectangles?

DRAW

Square's Side	Square's Area	Rectangle's Area

EXTRA WORKSPACE

Lesson 22 G:5 M:6	Perplexing Problems: Part 2
	ZEARN STUDENT NOTES

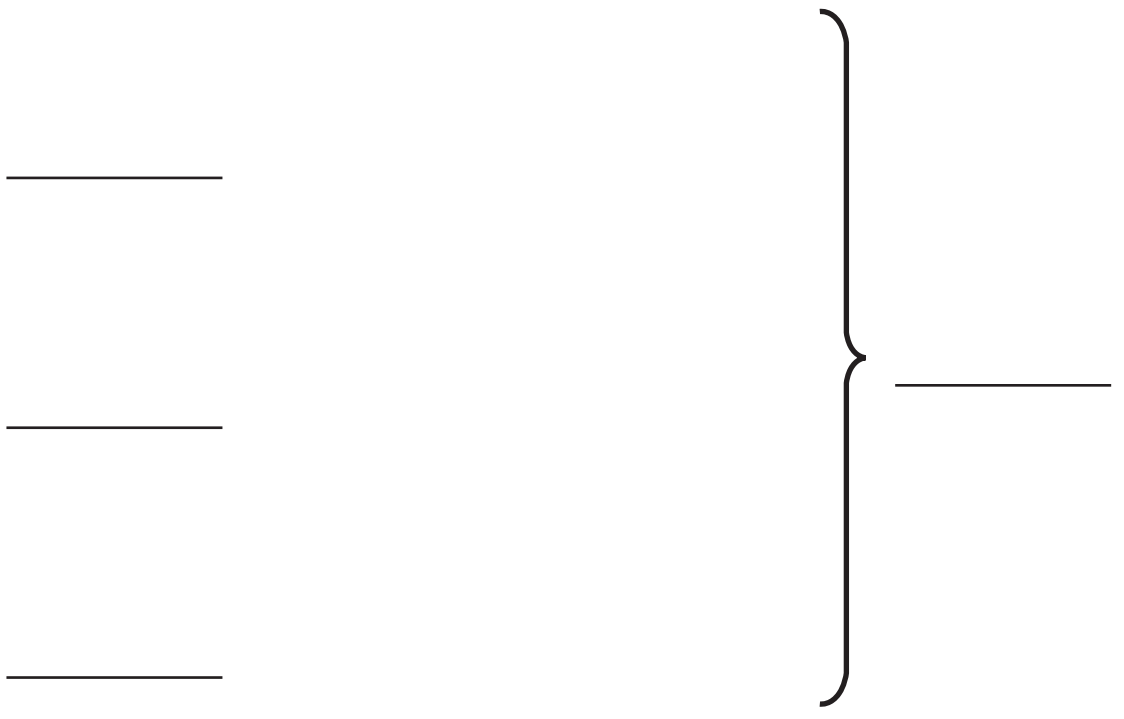
Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 An athlete saved $184. She bought a glove, cleats, and a hat. After her purchases, she still had $39.50. The glove cost three-fifths the cost of the cleats, and the hat was one-sixth as much as the glove.

What was the cost of each item? How much more did the cleats cost than the hat?

DRAW



SOLVE

Lesson 23 G:5 M:6	Perplexing Problems: Part 3
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Three pumpkins and two squash weigh 27.5 pounds. Four pumpkins and three squash weigh 37.5 pounds. Each pumpkin weighs the same as the other pumpkins, and each squash weighs the same as the other squash.

How much does each pumpkin weigh? How much does each squash weigh?

DRAW

SOLVE

EXTRA WORKSPACE

Lesson 24 G:5 M:6	Perplexing Problems: Part 4
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 The Zearn Fair charges $1.75 for entrance and $1.05 for each ride. Mr. Sawicki brings $20 with him to the fair.

What is the greatest number of rides Mr. Sawicki can go on if he uses $2.50 for food?

DRAW

SOLVE

EXTRA WORKSPACE

Lesson 26 G:5 M:6	REFLECTION

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

How did the games we played today prepare you to practice writing, solving, and comparing expressions? Why do you think these are important skills to work on? Will you teach someone at home how to play these games with you? What math skills will you need to teach in order for someone at home to be able to play with you?

Lesson 27 G:5 M:6	REFLECTION

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

How did teaching other students how to solve a word problem strengthen your skills as a problem solver? What did you learn about your problem-solving skills? What are your strengths and weaknesses as a problem solver?

Lesson 28 G:5 M:6	Fluency Round Up
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1

SHOW YOUR WORK

$\frac{1}{2} \times \frac{1}{3} =$ _____

$\frac{1}{2} \times \frac{3}{4} =$ _____

$\frac{2}{5} \times \frac{2}{3} =$ _____

$\frac{3}{4} \times \frac{3}{5} =$ _____

$\frac{4}{5} \times \frac{2}{3} =$ _____

EXTRA WORKSPACE

Lesson 28 G:5 M:6	REFLECTION

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

What math skills have you improved through our Fluency Practice? How do you know you've improved? What math skills do you need to continue to practice? Why?

Lesson 29 G:5 M:6	REFLECTION

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

It is said that the true measure of knowing something is being able to teach it to someone else. Who can you teach these terms to? How will you teach these terms to your student?

Lesson 30 G:5 M:6	REFLECTION

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Playing math games can be a fun way to practice math skills. How will you use the games to retain these terms? Who will play with you? How can you change the games to play alone? How often will you play games?

Lesson 32 G:5 M:6	Zearnland Savings
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 Jacob wants to save money for a souvenir from Zearnland in one year. In the first month, he added one quarter. Each month, he adds one quarter more than he added the month before. Complete the chart to show how much he will save in a year.

Month	Add	Total
January	$0.25	$0.25
February	$0.50	
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

EXTRA WORKSPACE

Lesson 32 G:5 M:6	REFLECTION

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Today, we watched how savings can grow over time, but we did not discuss how the money saved was earned. Have you ever thought about how math skills might help you to earn money? If so, what are some jobs that might require strong math skills? If not, think about it now. How might you make a living using math skills?

Congratulations!

You completed

Grade 5 Mission 6

The Coordinate Plane

Name ..... Date .....

Zearned it!