

Name _____ # _____

Date _____

Agent D: Latitude and Longitude

Welcome to the O.W.C.A Spy Team! Recently, one of our field agents, Dozer the Dog, discovered a list of places in the United States where Dr. Evilton is planning to release a Super Silly Laughing Gas concoction, causing the whole country to laugh at the same time. Your job, using the maps in your textbook, is to help Dozer find the places on Dr. Evilton's list using latitude and longitude to help you. Some of the places are listed and you need to give Dozer the coordinates, other places have coordinates but no place name. The future of humor everywhere depends on you! Good luck!



City	Latitude	Longitude
	30°N	90°W
	33°N	113°W
	44°N	69°W
	40°N	75°W
	36°N	98°W
	35°N	81°W
	41°N	74°W
Portland, Oregon		
	45°N	101°W
Odessa, TX		
Honolulu, Hawaii	21°N	158°W
	62°N	150°W
Las Vegas, Nevada		
Nashville, Tennessee		
	36°N	106°W

One-Room Schoolhouse

Have you ever heard of a one-room schoolhouse? A one-room schoolhouse is the type of school that children attended in the 1800s and early 1900s. In a one-room schoolhouse children in every grade learned in one classroom. The teacher had to teach all of the students. The teacher also made sure that the school was warm in the winter. Teachers kept the school clean and ready for learning, too. In a one-room schoolhouse, school started at 9:00 in the morning. School ended at 4:00 in the afternoon. Children had a 15-minute recess. Then, they had one hour for lunch. Students learned about reading, writing, math, geography, and history. In the 1800s, there were no summer vacations. Instead, schools had winter and summer sessions. The one-room schoolhouse shows that helping students to learn was important to America.

1. A teacher in a one-room schoolhouse...
 - A. was not very busy.
 - B. had many duties.
 - C. taught one grade at a time.
2. What was special about a one-room schoolhouse?
 - D. Children in different grades learned in one classroom.
 - E. The school was large.
 - F. The children got a new teacher every year.
3. How are one-room schoolhouses and the schools of today the same?
 - A. They both have classrooms filled with students in every grade.
 - B. Both schools were open during the same time of the year.
 - C. The subjects that were taught were the same.
4. Based on this passage, you can determine that...
 - D. The students were not well-behaved in school.
 - E. The teacher had many jobs.
 - F. One-room schoolhouses were not important.
5. Summarize the teacher's role in a one-room schoolhouse.
 - A. The teacher was very important.
 - B. The teacher depended on the students.
 - C. The teacher was not needed.
6. Select the best summary for the passage below.
 - D. One-room schoolhouses are the same as classrooms of today.
 - E. One-room schoolhouses do not help us learn about the past.
 - F. One-room schoolhouses show that teaching children has always been important.
7. What is something you learned about one-room schoolhouses?

Transfer your answer to space #7 on the coloring page. Then, color the space any color.

Functions and Equations

Vocabulary Start-Up

Vocab



A **linear function** is a function whose graph is a line.

Linear

Everyday Definition of Function

linear function

What do you notice about the graph?

Math Definition of Function



Essential Question

HOW are symbols, such as $<$, $>$, and $=$, useful?

Vocab



Vocabulary

linear function



Common Core State Standards

Content Standards
6.EE.9

MP Mathematical Practices
1, 3, 4, 8



Real-World Link

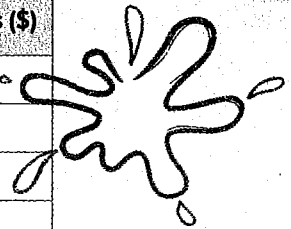
Babysitting The table shows the amount of money Carli earns based on the number of hours she babysits.

1. Write a sentence that describes the relationship between the number of hours she babysits and her earnings.

2. Does she earn the same amount each hour?

Explain. _____

Hours Babysitting	Earnings (\$)
1	6
2	12
3	18
4	24



Which **MP Mathematical Practices** did you use?

Shade the circle(s) that applies.

- 1 Persevere with Problems
- 2 Reason Abstractly
- 3 Construct an Argument
- 4 Model with Mathematics
- 5 Use Math Tools
- 6 Attend to Precision
- 7 Make Use of Structure
- 8 Use Repeated Reasoning

Example

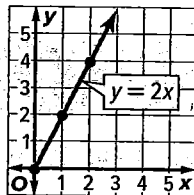
Tutor

2. Graph $y = 2x$.

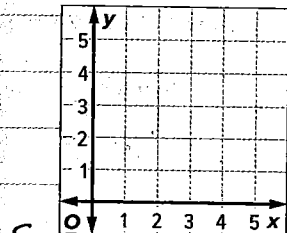
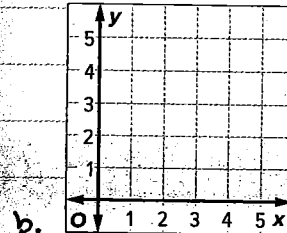
Step 1 Make a table of ordered pairs. Select any three values for x . Substitute these values for x to find y .

x	$2x$	y	(x, y)
0	$2(0)$	0	(0, 0)
1	$2(1)$	2	(1, 2)
2	$2(2)$	4	(2, 4)

Step 2 Graph each ordered pair. Draw a line through each point.



Show your work.



Got it? Do these problems to find out.

b. $y = x + 1$

c. $y = 3x + 2$



Examples

Tutor

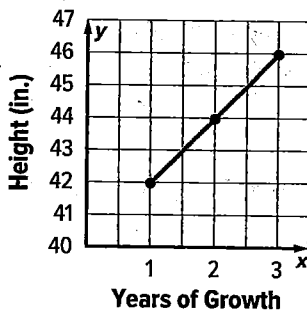
Martino constructed the graph shown, which shows the height of his cactus after several years of growth.

3. Make a function table for the input-output values.

The three input values are 1, 2, and 3. The corresponding output values are 42, 44, and 46.

Input (x)	Output (y)
1	42
2	44
3	46

Cactus Height



4. Write an equation from the graph that could be used to find the height y of the cactus after x years.

Since the output values increase by 2, the equation includes $2x$. Each output value is 40 more than twice the input. So, the equation is $y = 2x + 40$.

Independent Practice

Go online for Step-by-Step Solutions

eHelp



Write an equation to represent each function. (Example 1)

1.

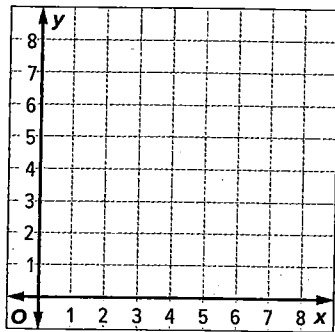
Input (x)	1	2	3	4	5
Output (y)	6	12	18	24	30

2.

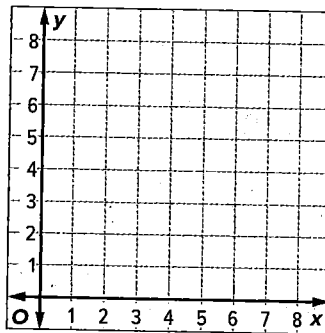
Input (x)	0	1	2	3	4
Output (y)	0	15	30	45	60

Graph each equation. (Example 2)

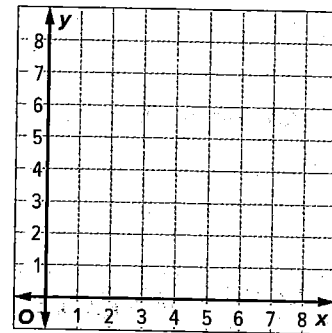
3. $y = x + 4$



4. $y = 2x + 0.5$

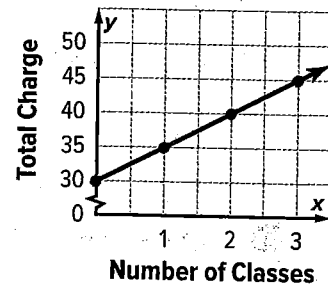


5. $y = 0.5x + 1$



6. The graph shows the charges for a health club in a month. Make a function table for the input-output values. Write an equation that can be used to find the total charge y for the number of x classes. (Examples 3 and 4)

Input (x)				
Output (y)				



7. The graph shows the amount of money Pasha spent on lunch. Make a function table for the input-output values. Write an equation that can be used to find the money spent y for any number of days x . (Examples 3 and 4)

Input (x)				
Output (y)				

