

Math

Distance Learning Week 4 5/11 – 5/15

Pages ⁸⁷~~90~~-101

Mon	5/11	Workbook 4-1 pages 87-90
Tues	5/12	Online 4-1
Wed	5/13	Workbook 4-2 pages 91-95
Thurs	5/14	Online 4-2
Friday	5/15	Catch-up Day

Math

Distance Learning Week 5 5/18 – 5/22

Mon	5/18	Workboook 4-3 pages 97-101
Tues	5/19	Online 4-3
Wed	5/20	No work
Thurs	5/21	No work
Friday	5/22	Last Day of School

Using Two Variables to Represent a Relationship

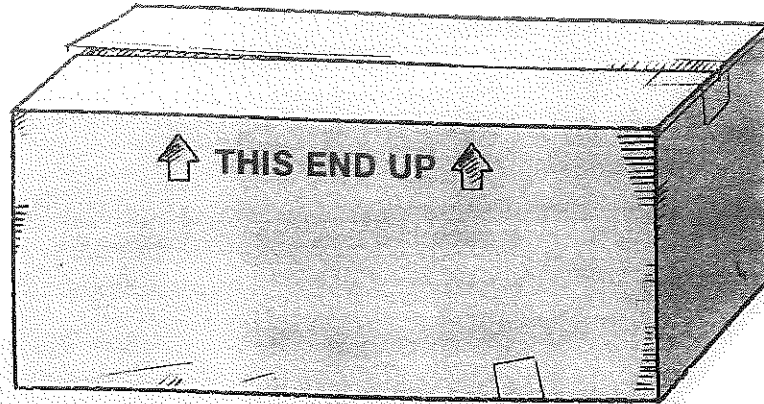


CCSS: 6.EE.C.9: Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity ... in terms of the other quantity

Launch

MP1, MP3

Think inside and outside the box. Inside the box, write three things that relate to the weight of the box. Outside the box, write three things about the box that do not relate to its weight.



Reflect Why does it matter what things relate to the weight of the box?

Got It?

PART 1 Got It

The fruit basket business takes 312 orders in one month. Orders can be shipped overnight or standard delivery.

Identify the related and unknown quantities.

PART 2 Got It (1 of 2)

The fruit basket company offers gift wrapping for an additional charge. Some customers choose to have their order gift-wrapped and others do not. One month, 145 people do *not* want their order gift-wrapped.

Write an equation to represent the situation.

Got It?

PART 2 Got It (2 of 2)

Is there more than one correct answer when you are writing an equation?

PART 3 Got It

The number of flowers in a bouquet determines the cost.
Identify the dependent variable.

Discuss with a classmate

What do you know about buying flowers that helped you with this problem?
Which action, picking out the flowers or finding the cost of the flowers, happens first? How does this help you determine the dependent variable?

Close and Check

Focus Question

© MP1, MP2

What does it mean for one quantity to depend on another? How do you represent such a relationship?

Do you know **HOW**?

1. Circle the related and unknown quantities in the word problem.

A conservation program plants 756 trees to reforest an area of land. A number of the trees are coniferous and a number of the trees are deciduous.

2. Write an equation to represent the situation above.

3. In each situation, underline the independent variable, and then circle the dependent variable.
 - A. The wind chill factor is related to the wind speed.
 - B. The amount of merchandise bought determines the amount of sales tax charged.
 - C. You earned d dollars for working h hours.

Do you **UNDERSTAND**?

4. **Vocabulary** How can you determine which variable is dependent and which variable is independent? Give an example.

5. **Error Analysis** A classmate writes an equation to determine how many boys b she can invite to her party after she invites her girlfriends g . She is allowed to have 25 guests. Explain her mistake, and then write the correct equation.

$$g - b = 25$$

Analyzing Patterns Using Tables and Graphs



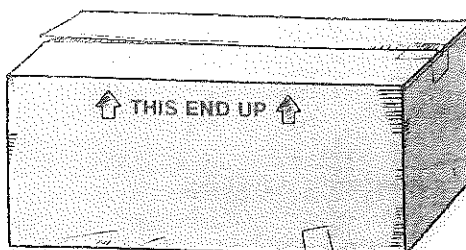
CCSS: 6.NS.C.8: Solve real-world and mathematical problems by graphing points in ... the coordinate plane ... 6.EE.C.9: ... Analyze the relationship between the dependent and independent variables using graphs and tables ...

Launch

MP4, MP7

Each time you open a box, you see two more boxes. There are seven boxes in all.

What is the minimum number of boxes you need to open to see all seven boxes?
Explain your reasoning.



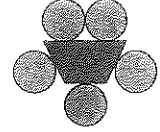
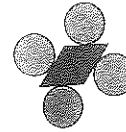
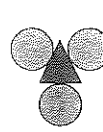
Reflect What are the dependent and independent variables in the problem?

Got It?

PART 1 Got It (1 of 2)

Draw the fourth figure in the pattern. After you draw the fourth figure, complete the table.

Figure	Number of Circles
1	3
2	4
3	5



PART 1 Got It (2 of 2)

Figures 1, 2, and 3 show a pattern. Describe why Figure 4 is *not* the fourth tree in the pattern.

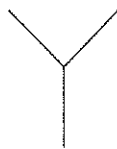


Figure 1

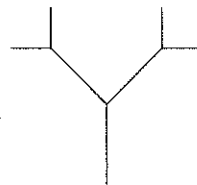


Figure 2

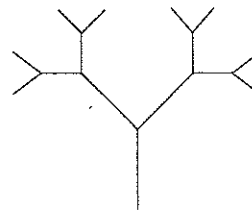


Figure 3

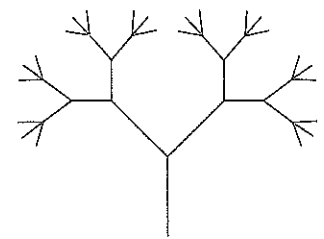


Figure 4

Got It?

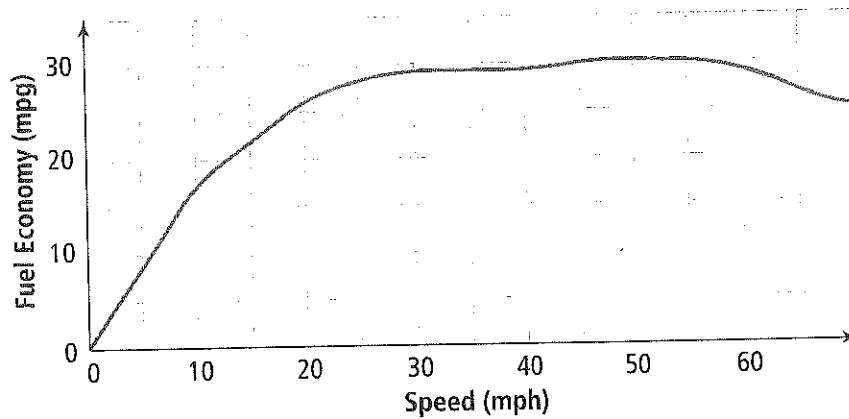
PART 2 Got It

Use the table to graph the relationship between the x-column and the y-column.

0	4
1	5
2	6
3	7
4	8

PART 3 Got It

The graph shows the relationship between the speed of a car and the car's fuel economy. Name a point that falls on the graph.



Got It?

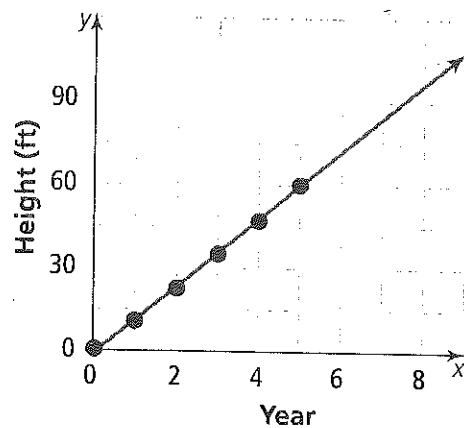
PART 4 Got It (1 of 2)

A kapok tree is a very tall rainforest tree. Assume that a kapok tree grows 12 feet each year. Complete the table and use the points to graph the growth of the kapok tree.

0	0
1	12
2	24
3	
4	
5	

PART 4 Got It (2 of 2)

Use the graph to predict how tall a kapok tree will be in Year 8.



Close and Check



Focus Question

How do you find a pattern in a table?

MP1, MP8

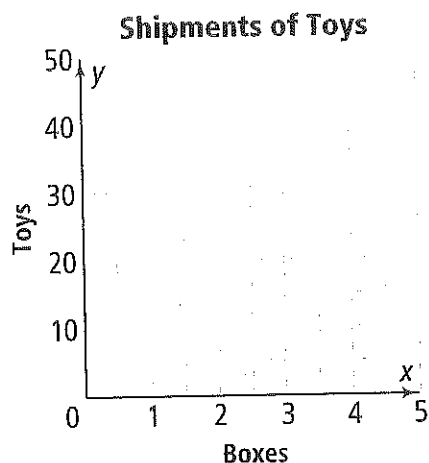


Do you know HOW?

1. Toys are shipped to a store by the box. Determine the pattern and complete the table to show how many toys are delivered for each number of boxes shipped.

Boxes	0	2		
Toys	0	20		

2. Use the table above to graph the relationship between the number of boxes shipped and the number of toys delivered.



Do you UNDERSTAND?

3. **Writing** The data for each 10-year census for the past 100 years is graphed. How can the graph be used to estimate the population between each census?

4. **Error Analysis** A classmate says the y column increases by 12 each time, so the next point (x, y) is $(6, 42)$. Explain his mistake and tell what he should have written.

x	1	3	5	6
y	6	18	30	42

Relating Tables and Graphs to Equations

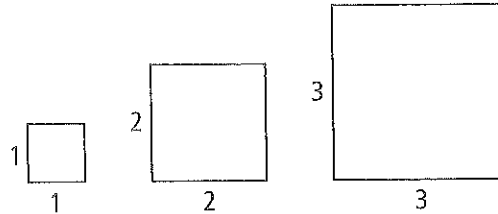


CCSS: G.EE.C.9: Use variables to represent two quantities in a real-world problem ... write an equation to express one quantity ... in terms of the other quantity ... Analyze the relationship between the variables using graphs and tables, and relate these to the equation.

Launch

MP3, MP8

Label each column in the table to reflect the pattern in the shapes. Then describe at least three patterns you see, within or across columns, using those label names.



1	1	4
2	4	8
3	9	12

Pattern 1

Pattern 2

Pattern 3

Reflect Where have you seen the patterns in this problem before? Explain.

Got It?

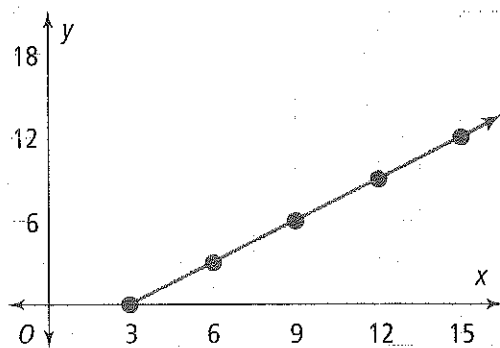
PART 1 Got It

Use the table to relate the independent variable x to the dependent variable y . Write an equation that shows the relationship.

x	y
0	0
2	8
4	16
6	24
8	32
10	40

PART 2 Got It (1 of 2)

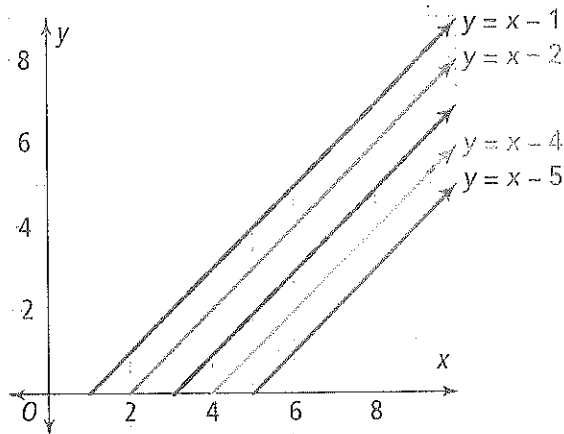
Use the graph to write an equation that represents the relationship between x and y .



Got It?

PART 2 Got It (2 of 2)

To the right is a graph showing five different lines. Four of the lines are labeled with the equation that represents the relationship between x and y . What is the missing equation? Start by looking for a pattern among the lines that are already labeled.



PART 3 Got It (1 of 2)

For a Saturday night show, a local band is paid \$200 plus \$5 for each ticket sold.

Write an equation that shows the relationship between the number of tickets sold and the total pay that the band receives.

Discuss with a classmate

Compare the equations that you wrote for this problem.

How did you choose the variable(s) to assign?

How did you determine how many variables you would need in order to write the equation?

Explain how you determined the expression for each side of the equation you wrote.

Relate the expression to the words in the problem statement.

Got It?

PART 3 Got It (2 of 2)

In the Example, you wrote an equation relating the number of games bowled and total cost: $T = 3g + 5$.

Can you use the Commutative Property of Addition to write an equivalent equation?

Close and Check



Focus Question

© MP1, MP8

How are graphs, tables, and equations related?

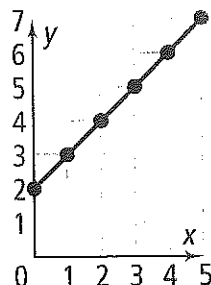


Do you know **HOW**?

1. Use the table to relate the independent variable x to the dependent variable y . Write an equation that shows the relationship.

x	y
3	12
5	14
7	16
9	18

2. Use the graph to write an equation that represents the relationship between x and y .



Do you **UNDERSTAND**?

3. **Reasoning** Is it easier to write an equation based on a graph or a table? Explain.

4. **Error Analysis** A classmate says the graph in Exercise 2 could represent the number of tokens won at an arcade. Explain the error in her suggestion.
