i-Ready®

Grade 8 Mathematics
Student At-Home Activity Packet

This At-Home Activity Packet is intended for a two-week period, and it includes lessons that your student may complete across more than one day.

The practice problems align to important math concepts your student has worked with so far this year.

Specific instructions to guide your student are found at the top of each page.

Encourage your student to do the best they can with this content—the most important thing is that they continue developing their mathematical fluency and skills.

Mangos
$2 each

Explore Functions

Model It

➤ **Complete the problems about functions.**

1 A rule may tell you what to do to a starting value, or **input**, to get a final value, or **output**. Use the rules to complete the tables.

a. Input: number of mangos that cost $2 each
Output: total cost

Mangos	1	2	3	4
Cost	$2	$4		

b. Input: x, number of students
Output: y, least number of two-student desks needed

Students (x)	1	2	3	4	5	6
Desks (y)	1	1				

c. A **function** is a type of rule in which each input results in exactly one output. Explain why both rules above are functions.

d. In problem 1a, you can say that the total cost is *a function of* the number of mangos. Write a similar statement about the numbers of students and desks.

2 Use the rule to complete the table. Explain why y is not a function of x.

Input: x, a number; Output: y, all numbers x units from 0 on a number line

Input (x)	1	2	3	4	5
Output (y)	−1, 1				

DISCUSS IT

Ask: In problem 1b, why do some inputs have the same output?

Share: To find the number of desks needed . . .

◎ **Learning Targets** SMP 1, SMP 2, SMP 3, SMP 7, SMP 8
• Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.
• Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear.
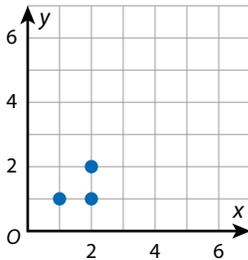
Model It

➤ **Complete the problems about showing a rule with a graph.**
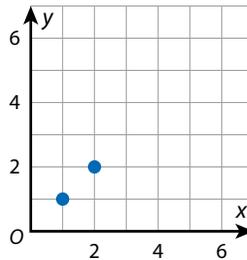
3 You can make a graph of the (input, output) pairs for a rule.

    a. Complete both graphs by plotting (input, output) pairs for input values of 3, 4, and 5.

Input: x, a whole number
Output: y, all factors of x

Input: x, a whole number
Output: y, the number of factors of x

    b. Look at the graph on the left. Is y a function of x? Explain how you know.

    c. Look at the graph on the right. Is y a function of x? Explain how you know.

4 **Reflect** How can making a table or graph help you decide whether a rule is a function?

➤ **Complete problems 1-3.**

1 **a.** Use the rule to complete the table.

Input: x, number of tickets that cost $9 each
Output: y, total cost

Tickets (x)	1	2	3	10
Cost (y)	$9			

b. Explain why the rule is a function.

2 **a.** Use the rule to complete the table.

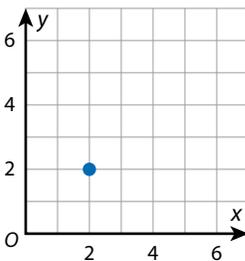Input: x, an angle
Output: y, the angle supplementary to x

Input (x)	10°	26°	45°	90°	112°	175°
Output (y)	170°	154°				

b. Is the rule a function? Explain.

3 **a.** Complete the graph by plotting (input, output) pairs for input values of 3, 4, and 5.

Input: x, a whole number
Output: y, all prime numbers less than or equal to x

b. Is y a function of x? How can you tell by looking at the graph?

# **Develop** Understanding of Linear and Nonlinear Functions

Model It: Graphs

➤ **Try these two problems involving linear and nonlinear functions.**

1 **a.** Functions can be classified as linear or nonlinear. Look at this **linear function**. Then complete the table and graph.

Input: x, number of birdhouses Aimee paints with 0.5 pint of paint each; Output: y, total pints of paint she needs

Birdhouses (x)	Pints of Paint (y)
1	
2	
3	
4	
5	
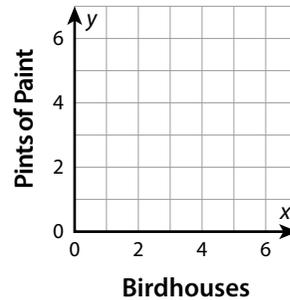
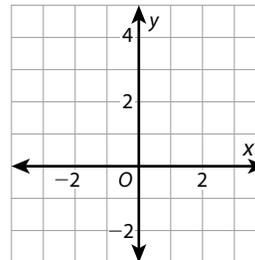**b.** Look at the shape of the graph. Why do you think this function is classified as a linear function?

2 **a.** Complete the table and graph for this **nonlinear function**.

Input: x, an integer; Output: y, the square of x

Input (x)	−2	−1	0	1	2
Output (y)					

b. How is the graph different from the graph of the linear function in problem 1?

Model It: Equations

➤ **Try this problem about functions.**

3 Many functions can be represented by equations that show how to calculate the output y for the input x.

a. Determine whether each equation represents a linear function. Show your work.

$$y = 2x - 1 \qquad y = -x^2 \qquad y = -x$$

SOLUTION _____

b. Explain how you know that equations of the form $y = mx + b$ always represent linear functions.

CONNECT IT

➤ **Complete the problems below.**

4 You want to determine whether a function is linear. How can making a graph or writing an equation help?

5 Does the rule describe a linear function? Use a model to explain.

Input: x, a number; Output: y, 6 more than 5 times x

Practice Linear and Nonlinear Functions

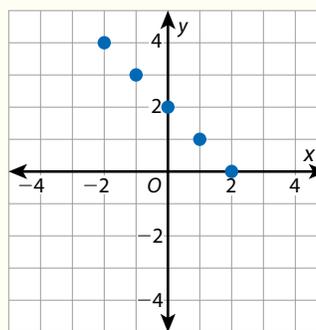➤ **Study how the Example shows how to determine whether a function is linear or nonlinear. Then solve problems 1–4.**

Example

Use a graph to determine whether the function is a linear function.

Input: *x*, a number; Output: *y*, 2 more than −1 times *x*

Make a table of input and output values.

Input (*x*)	−2	−1	0	1	2
Output (*y*)	4	3	2	1	0

Graph the (input, output) pairs. The points lie on a straight line. Plotting more points will continue to follow the same straight line. The function is linear.

1. **a.** What is an equation that represents the rule in the Example?

    b. Use the equation to explain why the rule is a linear function.

2. Complete the table and graph for the function. Tell whether the function is linear or nonlinear. Explain your reasoning.

    Input: *x*, a number; Output: *y*, 6 divided by *x*

Input (*x*)	Output (*y*)
1	
2	
3	
4	
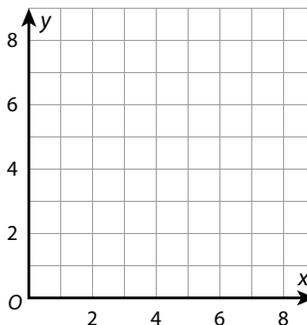
3 Each graph represents a function. Tell whether the function is *linear* or *nonlinear*.
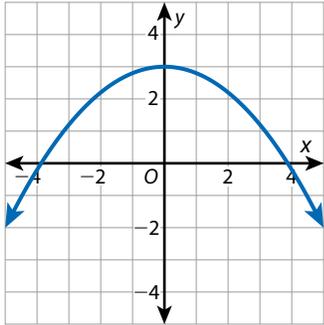
a. _____
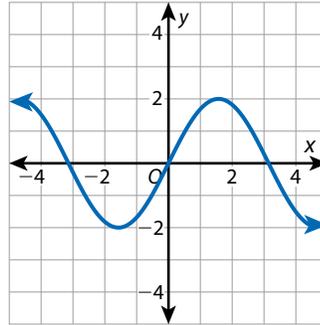
b. _____
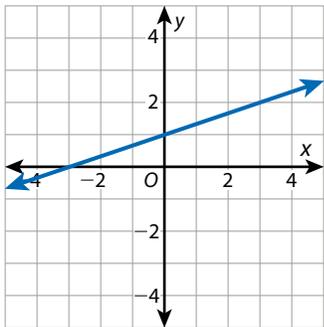
c. _____
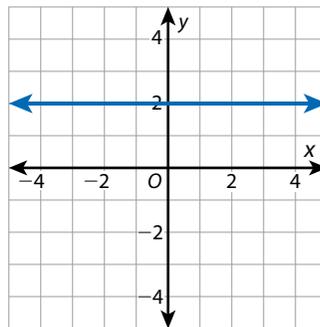
d. _____

4 Felipe wants to figure out if the equation $y = x(x + 2)$ represents a linear function.

He finds two (x, y) pairs and plots them.

x	−3	2
y	3	8

Felipe says he can draw a line through these two points, so the equation represents a linear function.

a. Explain why Felipe's reasoning is incorrect.
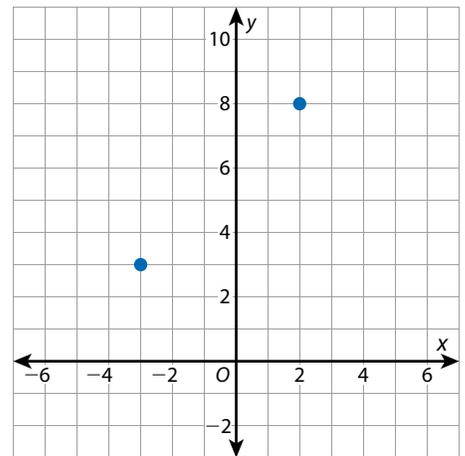
b. Does the equation represent a linear function? Explain your reasoning.

Refine Ideas About Functions

Apply It

Math Toolkit graph paper, straightedges

➤ **Complete problems 1–5.**

1 **Apply** Ana is bowling. She pays $4 per game and $7 to rent shoes. After three games, each additional game is free. Is the total cost to bowl a function of the number of games played? Use a table or graph to help explain your answer.

$4 per game
$7 shoe rental

2 **Identify** The tables show inputs and outputs for two functions. One of the functions is linear. Explain how you can tell without a graph which represents a linear function.

Table 1

Input	1	2	3	4	5
Output	6	7	9	12	16

Table 2

Input	2	4	6	8	10
Output	5	9	13	17	21

3 **Analyze** Fiona says the graph does not represent a function because inputs −1 and 1 have the same output, 3. Is Fiona correct? Explain.
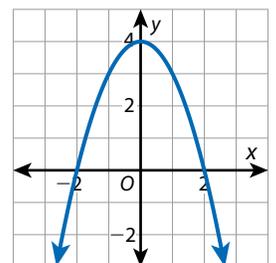
4 **PART A** Give an example of a nonlinear function. You may represent the function by giving the rule in words or by writing an equation.

PART B Make a graph or table to represent your function.

PART C Use your graph or table to help you explain why your function is nonlinear.

5 **Math Journal** How can you tell if a rule represents a function? Explain how a graph, table, or equation for a rule can help you determine whether the rule is a function.

Explore Using Functions to Model Linear Relationships

Previously, you learned about functions. In this lesson, you will learn about writing equations to model linear functions.

➤ **Use what you know to try to solve the problem below.**

A customer can use the menu above to call in a pizza order. He or she chooses a size and then adds toppings. The graphs and equations model the prices of the two sizes of pizza.

$y = 1.5x + 8$

$y = 2x + 12$

Which equation and which line model the price of a small pizza? Which equation and which line model the price of a large pizza?
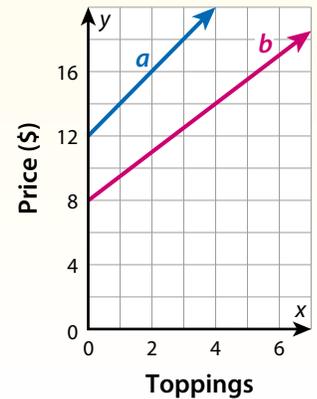
TRY IT

DISCUSS IT

Ask: Which numbers in the problem helped you answer the questions?

Share: The numbers I used were . . .

Learning Target   SMP 1, SMP 2, SMP 3, SMP 4, SMP 5, SMP 6, SMP 7

Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

1 **Look Back** Which equation and graph represent the price of each size pizza? How do you know?

2 **Look Ahead** The graphs and equations in the **Try It** problem are linear models because they model, or represent, linear functions.

   a. A linear function has a constant rate of change. What do the rates of change represent in this situation?

   b. The **initial value** of each function in the **Try It** is the value of y when $x = 0$. What do the initial values represent in this situation?

   c. What quantities do the variables x and y represent in this situation? Use the phrase *is a function of* to describe the relationship between these quantities.

3 **Reflect** Look back at the equations and graphs in the **Try It** problem. Which type of model would you rather use to find the price of a pizza? Explain.

Develop Interpreting a Linear Function
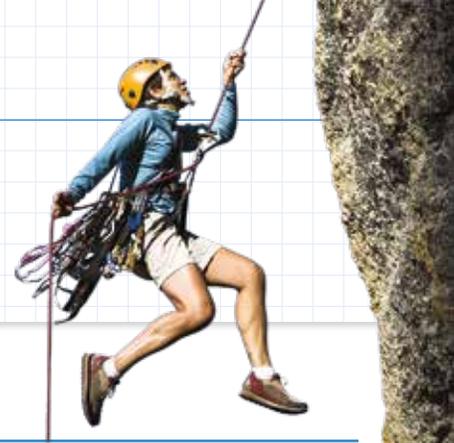
➤ **Read and try to solve the problem below.**

Aretha is rappelling down the side of a cliff. The graph shows her height above the ground in feet as a function of time in seconds as she descends.

What is Aretha's height above ground when she begins rappelling down? At what rate does she descend?
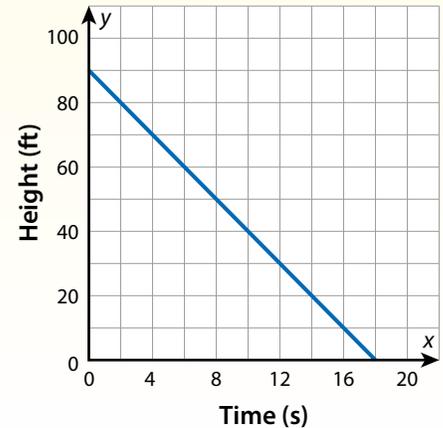
TRY IT

➤ **Explore different ways to interpret a linear function.**

Aretha is rappelling down the side of a cliff. The graph shows her height above the ground in feet as a function of time in seconds as she descends.

What is Aretha's height above ground when she begins rappelling down? At what rate does she descend?
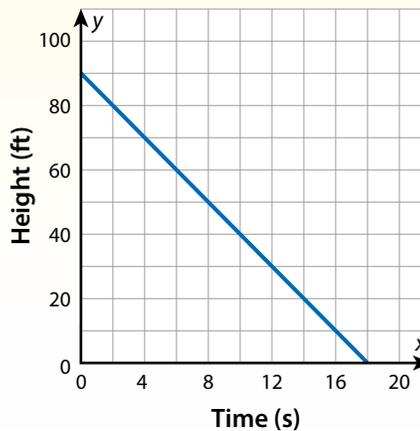
Model It

You can model the function with a linear equation.

Find the slope and *y*-intercept.

$$\text{slope} = \frac{90 - 0}{0 - 18}$$

$$= \frac{90}{-18}$$

$$= -5$$

The graph shows that the *y*-intercept is 90.

An equation of the function is $y = -5x + 90$.
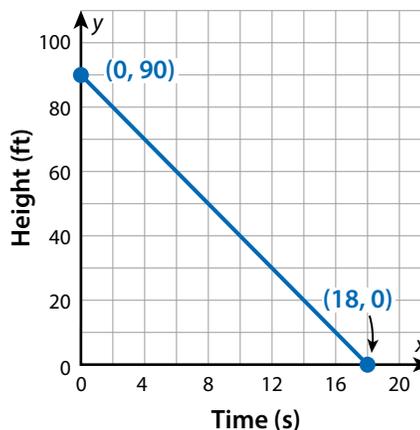
Analyze It

You can answer the questions by analyzing each part of the equation.

$$y = -5x + 90$$

rate of change   initial value

The **rate of change** shows how Aretha's height, *y*, changes over time, *x*.

The **initial value** of the function is Aretha's height at time 0.

CONNECT IT

➤ **Use the problem from the previous page to help you understand how to interpret a linear function.**

1 How can you determine what *x* and *y* represent in the equation of the function?

2 Look at **Model It** and **Analyze It**. What is Aretha's height above the ground when she starts rappelling? At what rate does she descend? How do you know?

3 **a.** Explain how to write an equation of a linear function when you know the rate of change and initial value of the function.

b. Describe how the rate of change and initial value of the linear function are represented in the graph of the function.

4 **Reflect** Think about all the models and strategies you have discussed today. Describe how one of them helped you better understand how to solve the **Try It** problem.

Apply It

➤ **Use what you learned to solve these problems.**

5 The total monthly cost of exercise classes is a linear function of the number of classes attended. The table shows costs for two different gyms.

a. What is the cost per class at each gym?

Classes Attended	Monthly Cost Gym A	Monthly Cost Gym B
5	$75	$110
10	$150	$160
15	$225	$210
20	$300	$260

b. Which gym charges a monthly fee? How do you know?

6 The graph shows distance in feet as a function of time in seconds. Write an equation for the function and describe a situation that it could represent. Include the initial value and rate of change for the function and what each quantity represents in this situation.
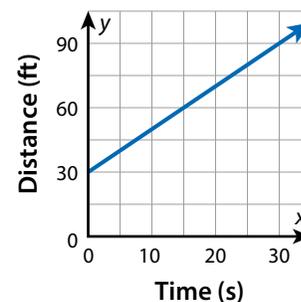
7 Mr. Seda plans a field trip for one of his classes. He rents one bus for the whole class and purchases a museum ticket for each student. The equation $y = 11x + 400$ gives the cost of the field trip as a function of the number of students who attend.

What is the initial value of the function? What is the rate of change? What do these values tell you about the field trip?

Practice Interpreting a Linear Function

➤ **Study the Example showing how to interpret a linear function. Then solve problems 1–4.**

Example

Snow falls early in the morning and stops. Then at noon snow begins to fall again and accumulate at a constant rate. The table shows the number of inches of snow on the ground as a function of time after noon. What is the initial value of the function? What does this value represent?

Hours After Noon	Inches of Snow
0	6
1	8.5
2	11

The initial value is 6, the number of inches of snow at noon, when the time value is 0. It represents the amount of snow that was already on the ground before it began snowing again.

1 **a.** What is the rate of change of the function in the Example? What does this value represent?

b. Suppose there was no snow on the ground before it began snowing at noon. What is the equation of this function?

2 The graph shows money in dollars as a function of time in days. Write an equation for the function, and describe a situation that it could represent. Include the initial value, rate of change, and what each quantity represents in the situation.
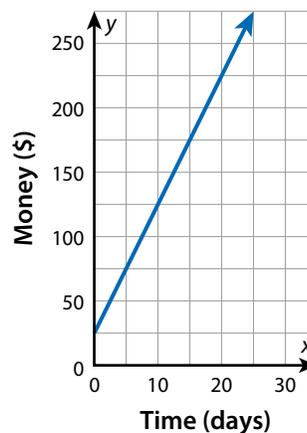
3 Each day Kyle buys a cup of soup and a salad for lunch. The salad costs a certain amount per ounce. The equation below models the total cost of Kyle's lunch.

$$y = 0.45x + 3.75$$

a. What do the variables x and y represent? Use the phrase *is a function of* to describe how the equation relates these quantities to one another.

b. What does the value of the function for $x = 0$ represent?

c. What does the rate of change represent?

d. What is the cost of an 8-ounce salad without soup? How do you know?

4 Carmela is a member of a social club. She pays an annual membership fee and $15 for each event she attends. The equation $y = 15x + 25$ represents her total cost each year. Which statement about the function is true? Select all that apply.

A The initial value is 15.

B x represents the cost of each event.

C The rate of change is 15.

D The initial value represents the annual membership fee.

E The number of events she attends is a function of the total cost.

F The total cost is a function of the number of events she attends.

Develop Writing an Equation for a Linear Function from Two Points
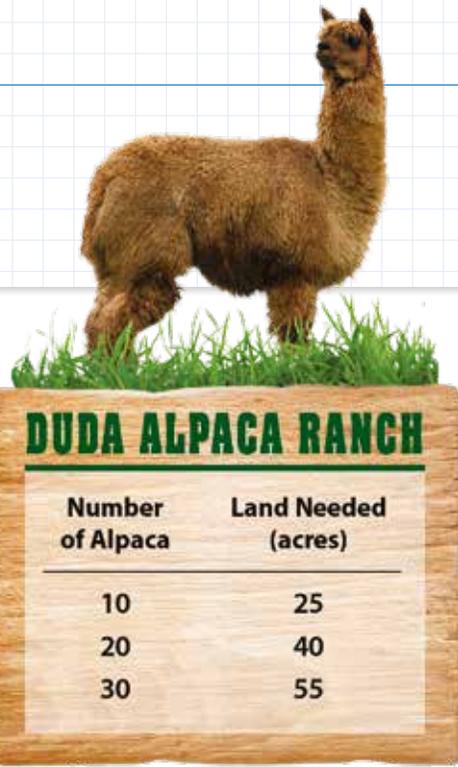
➤ **Read and try to solve the problem below.**

The Duda family owns 10 acres of land. They want to buy more land and start a ranch. The amount of land they need is a linear function of the number of grazing animals they plan to have. The family decides to raise alpaca. The table gives the number of acres they need for different numbers of alpaca.

Write an equation to model the data in the table.

DUDA ALPACA RANCH

Number of Alpaca	Land Needed (acres)
10	25
20	40
30	55

TRY IT   Show your work.

DISCUSS IT

Ask: How did you use the information given in the table?

Share: I used the numbers in the table to . . .

➤ Explore different ways to write an equation for a linear function.

The Duda family owns 10 acres of land. They want to buy more land and start a ranch. The amount of land they need is a linear function of the number of grazing animals they plan to have. The family decides to raise alpaca. The table gives the number of acres they need for different numbers of Alpaca.

Write an equation to model the data in the table.

Number of Alpaca	Land Needed (acres)
10	25
20	40
30	55

Picture It

You can use a graph to find the slope and *y*-intercept.

Plot the points given in the table and graph the line.

$$\text{slope} = \frac{\text{rise}}{\text{run}} \qquad \qquad \textit{y}\text{-intercept} = \textbf{10}$$

$$= \frac{15}{10}$$

$$= 1.5$$
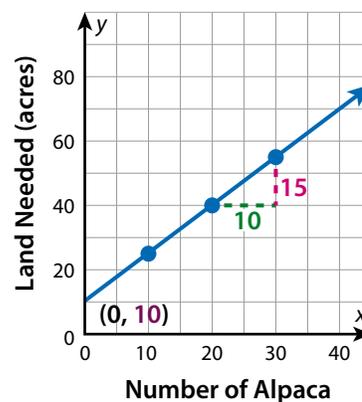
Model It

You can calculate the rate of change and initial value.

Use the values from any two rows of the table to find the rate of change.

Use (10, 25) and (30, 55): rate of change $= \frac{55 - 25}{30 - 10} = \frac{30}{20} = \textbf{1.5}$

To find the initial value, substitute the rate of change and one pair of values from the table into the equation for a linear function.

Use (**10**, **25**): $\textbf{\textit{y}} = \textbf{\textit{mx}} + \textbf{\textit{b}}$

$\qquad \qquad \textbf{25} = \textbf{1.5}(\textbf{10}) + \textit{b}$

$\qquad \qquad 10 = \textit{b}$

CONNECT IT

➤ **Use the problem from the previous page to help you understand how to write an equation for a linear function.**

1 Look at **Picture It** and **Model It**. What is the equation for the amount of land needed as a function of the number of alpaca on the ranch? What does the equation mean in this situation?

2 **a.** Look at **Model It**. What other pair of x- and y-values could you use to find the initial value? Use these values to show you get the same answer.

b. Edward uses $x = 10$ and $y = 40$ to find the initial value. What is his mistake?

3 How do you know that there is only one possible value for the rate of change?

4 Explain how you can write the equation for a linear function when you know only two points on the line.

5 **Reflect** Think about all the models and strategies you have discussed today. Describe how one of them helped you better understand how to solve the **Try It** problem.

Apply It

➤ **Use what you learned to solve these problems.**

6 The cost of a cross-stitch project is a function of the number of skeins of embroidery floss it requires. The table shows the cost of projects that use different amounts of embroidery floss. What is the equation of the linear function that models this situation? Show your work.

Skeins of Embroidery Floss	Cost of Project
5	$11.25
8	$13.50
12	$16.50

SOLUTION

7 You are trying to find the equation of the line that passes through two points, P and Q. P is in Quadrant II and Q is in Quadrant IV. What do you know about the slope of the line? Explain.

8 What is the equation of the function shown by the graph? Show your work.

SOLUTION

i-Ready
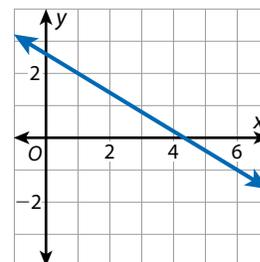
Grade 8 Reading

Student At-Home Activity Packet 3

This At-Home Activity Packet is intended for a two-week period, and it includes lessons that your student may complete across more than one day.

Most lessons can be completed independently. However, there are some lessons that may benefit from the support of an adult. If there is not an adult available to help, don't worry! Just skip those lessons. A teacher will be in touch soon and your student can ask for help.

Encourage your student to do the best they can with this content. The most important thing is that they continue to work on their reading!

Flip to see the Grade 8 Reading activities included in this packet!

Summarizing Literary Texts

Your best friend missed her favorite show. She knows you watch it, too, and calls asking you to **summarize** what happened. When you summarize, you briefly retell the main characters, setting, conflict, and important events. To paint as clear a picture as possible, you make sure your summary is **objective**, or free of your own opinions.

Study these images about a time traveler. Look for details about character, setting, and events.

The year is 1906. Artemus sets his time machine for the year 2056 . . .

. . . only to discover that the future isn't what he had hoped it would be.
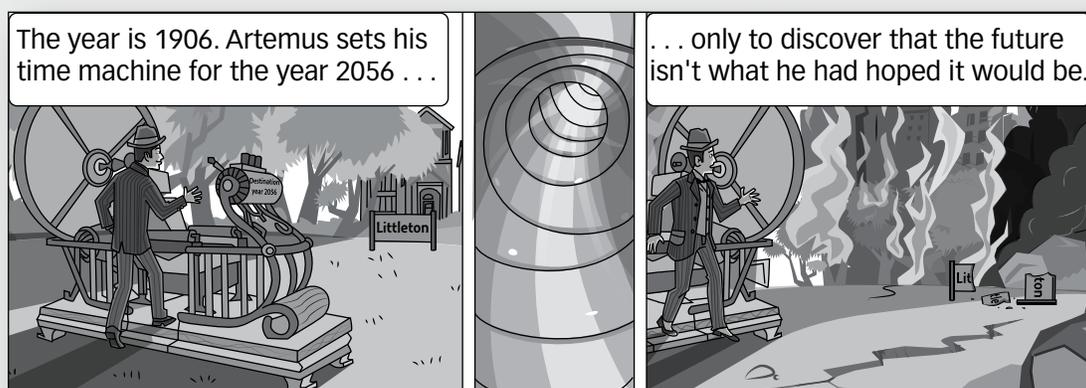
Now review the graphic organizer below. Notice that it includes only essential details, tells events in the order they happened, and is free of personal opinions.

Setting	Important Event
A town at two different time periods	Time traveler from the past hops onto his time machine.

Characters	Important Event
Time traveler	Time traveler journeys to the future, finds town destroyed.

Summary
A time traveler journeys to the future with a time machine and finds that his town has been destroyed.
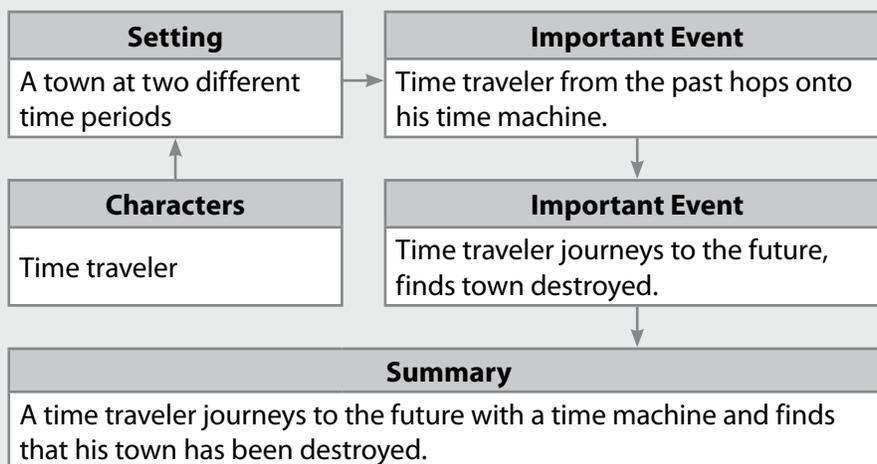
Summarizing isn't just a way for you to describe a story to others. It can also be a tool to help you understand what you're reading. Stop occasionally to summarize what has happened. Be sure you include only the most important details. This process will help you check your understanding of a text and remember important details.

Read the first three paragraphs of this science fiction story.

Touchdown on Spectra Omicron 8   *by William Nicols*

This just in! The UFP Ulysses vessel has touched down on the planet Spectra 8. This signifies the first stage in its terraforming expedition. The complex multi-stage terraforming process will make Spectra's atmosphere more like that of Earth and livable for humans.

Captain Jane Young and her crew of 21 blasted off in May of 2218 for the 6-year journey through deep space to reach the lifeless planet. They encountered a number of problems along the way. First, they were stuck in the gravitational pull of an anti-matter black hole. They also had to deal with a salmonella outbreak in the ship's food storage.

In October of this year, the Ulysses established orbit. Lieutenant Bobby Sullivan piloted the vessel toward the planet's surface. He set the angle-of-entry so the ship would not burn up when passing through the atmosphere. After securing visual confirmation of the landing site, Sullivan deployed the landing gear, applied the thrusters, and brought the ship in for a soft three-point landing.

Explore how to answer this question: *"How can you best summarize this part of the story?"*

Remember that a summary is a brief retelling that includes the main characters, setting, and important events. Underline each of these things in the story above.

Summaries should be objective, or free of opinions and judgments. Read the following summary of the story. Cross out any opinions and personal feelings in the summary.

> In the year 2218, the Ulysses sets off on a really dangerous mission to begin the terraforming of planet Spectra 8. They have to deal with some scary problems along the way, but they finally reach the planet. The most interesting part is how pilot Bobby Sullivan brings the ship in for a safe landing.

- "Really dangerous" in the first sentence is an opinion and not a detail from the text. Cross it out.
- The word "scary" in the second sentence is another opinion. Cross it out, too.
- Remove "The most interesting part," which is a judgment.

Think about how to improve this part of the summary. Include additional information about the characters, setting, and important events. Also be sure to keep the summary objective by avoiding opinions and judgments, such as "My favorite part was . . ." or "It was great how . . ."

Close Reading

Before you start summarizing, **underline** the names of important characters as well as clues about the setting. **Circle** important events.

Continue reading the science fiction story. Then answer the question that follows.

(continued from page 2)

Now that the Ulysses has landed, it is time for Young and her team to begin exploring the planet's surface. Spectra Omicron 8 is little more than loose rocks of red clay. One of Captain Young's top priorities is establishing the Ulysses base camp with its many domed sections. With so much carbon monoxide in the atmosphere, oxygen corridors must be built to connect the domes, which will be used for farming, geological research, and communications. A molten-carbon drill will then be constructed in the camp's center to burrow through to the planet's core, carrying the terraforming unit that will aid in surface reconstruction.

Hint

Avoid answer choices that include an opinion or unimportant details.

Circle the correct answer.

Which is the best summary for this portion of the text?

A Captain Young explores the planet's surface and begins building the base camp.

B Captain Young shows she is a strong leader by quickly establishing the base camp.

C The domes in the base camp will be used for farming, geological research, and communications.

D The drill at the center of the camp is made from molten-carbon.

✎ **Show Your Thinking**

Explain why the other answer choices are not good summaries of the second part of the text.

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Read the science fiction story. Use the Study Buddy and the Close Reading to guide your reading.

As I read, I will pause to summarize who the characters are, where the story is set, and what some of the important events are.

Close Reading

In addition to the narrator, who are the main characters in the story? **Circle** the first mention of each one.

Underline important details that provide clues about where Allya was and the alien they have encountered.

Prime Contact   *by Justin Greenfield*

Imperator's log, the 36th of Quelnar, 4278

1   Today I had a fascinating meeting with a promising new captain by the name of Allya. The first thing I noticed about her was the remarkable hue of her purple eyes, much more vibrant than the rest of ours.

2   At any rate, she relayed to me how her crew had recently returned from a mission to the third planet from the central star, where they had an encounter with one of the dominant life forms. I inquired as to the extent of the creatures' technology, and Allya replied that they had advanced machines but preferred to let their servants operate them. These servants live with them—in fact, there are often several servants in each home. They walk about on two legs, prepare food, and feed their four-legged masters.

3   Allya then told me that a member of this alien race had returned with them on their ship. Of course, I asked to see the creature straight away, and when it was brought into my throne room, I was taken with how friendly it appeared, inviting but cautious. Its wide, green eyes were alert and confident, but—dare I say—bored?

4   Since it was a very short and very furry sort of alien, I lay down on the floor to establish better verbal communication with it. I welcomed it to Harlapan, home of the Galactic Confederacy. The creature stretched out its front legs and appeared to bow. I distinctly heard an odd purring sound coming from it. A form of telepathic language it shares with its species, perhaps?

5   "Meow," it said with great dignity before turning to the task of licking its paws. Fascinating.

Hints

Which of the four answer choices is an important statement about the story that does not contain an opinion?

Omit the choices that are not connected to the ending, or that are unimportant or not objective.

The story tells the events in a certain order. That is not, however, the order in which the events actually happened in time.

Use the Hints on this page to help you answer the questions.

1 Which of the following would you include in a summary of "Prime Contact"?

A It's very funny that the Imperator doesn't realize that the alien is a house cat.

B The Imperator of Harlapan asks to meet the alien that has returned with Allya.

C The alien loses interest in the Imperator and starts licking its paws.

D The Imperator is fascinated by Allya's remarkable purple eyes.

2 Which is the best summary for the last events of the story?

A Allya travels to the third planet and brings back an alien.

B The people of Harlapan are clearly very advanced.

C The servants the Imperator describes must be humans.

D The alien meows and licks its paws, revealing that it's a cat.

3 The notes for a summary need to be arranged correctly into the order in which the events occur in the passage.

Indicate the correct chronological order of the events below by writing the numbers 1 to 8 on the blank before each sentence.

_____ An alien creature boards Allya's ship.

_____ Captain Allya tells how the servants care for their masters.

_____ The Imperator lies down on the floor.

_____ The Imperator meets with Captain Allya.

_____ Allya and her crew visit another planet.

_____ The Imperator notices the alien's confidence.

_____ The alien makes a strange purring sound.

_____ The Imperator asks to meet the alien.

Read the story. Then answer the questions that follow.

from *The War of the Worlds*

by H. G. Wells

Earth was not prepared for the Martian invasion that began in a field outside of London. Disbelief turned to horror as the Martian forces spread throughout the country, destroying everything in their path. No human weapons were able to stop their deadly attacks and superior technology. Then a sudden and surprising set of events occurred that changed everything.

1   I came upon the wrecked handling-machine halfway to St. John's Wood station. At first I thought a house had fallen across the road. It was only as I clambered among the ruins that I saw, with a start, this mechanical Samson lying, with its tentacles bent and smashed and twisted, among the ruins it had made. The forepart was shattered. It seemed as if it had driven blindly straight at the house, and had been overwhelmed in its overthrow. It seemed to me then that this might have happened by a handling-machine escaping from the guidance of its Martian. I could not clamber among the ruins to see it, and the twilight was now . . . far advanced. . . .

2   Wondering still more at all that I had seen, I pushed on towards Primrose Hill. Far away, through a gap in the trees, I saw a second Martian, as motionless as the first, standing in the park towards the Zoological Gardens, and silent. A little beyond the ruins about the smashed handling-machine I came upon the red weed[1] again, and found the Regent's Canal, a spongy mass of dark-red vegetation. . . .

3   Great mounds had been heaped about the crest of the hill, making a huge redoubt[2] of it—it was the final and largest place the Martians had made—and from behind these heaps there rose a thin smoke against the sky. Against the sky line an eager dog ran and disappeared. The thought that had flashed into my mind grew real, grew credible. I felt no fear, only a wild trembling exultation, as I ran up the hill towards the motionless monster. Out of the hood hung lank shreds of brown, at which the hungry birds pecked and tore.

4   In another moment I had scrambled up the earthen rampart and stood upon its crest, and the interior of the redoubt was below me. A mighty space it was, with gigantic machines here and there within it, huge mounds of material and strange shelter places. And scattered about it, some in their overturned war-machines, some in the now rigid handling-machines, and a dozen of them stark and silent and laid in a row, were the Martians—dead—slain by the putrefactive[3] and disease bacteria against which their systems were unprepared; slain as late the red weed was being slain; slain, all after man's devices had failed, by the humblest things that God, in his wisdom, has put forth upon this earth.

[1] **red weed:** a fictional plant native to Mars

[2] **redoubt:** temporary fortification, or wall built as a defense

[3] **putrefactive:** rotting, having a foul odor

5   For so it had come about, as indeed I and many men might have foreseen had not terror and disaster blinded our minds. These germs of disease have taken toll of humanity since life began here. . . . But there are no bacteria on Mars, and directly these invaders arrived, directly they drank and fed, our microscopic allies began to work their overthrow.

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1   Which detail from paragraph 1 would be **least** important to include in a summary of the paragraph?

   A   On the way to St. John's Wood station, the narrator finds a demolished handling-machine.

   B   The machine seems to have collapsed in the middle of destroying a house.

   C   The narrator believes that the wreckage might be the result of a Martian losing control of the machine.

   D   Due to the lack of light, the narrator cannot see inside the wreck.

2   Which of the following is **not** an objective statement of events?

   A   The narrator notices a second smashed and motionless handling-machine as he continues on his way towards Primrose Hill.

   B   The aliens probably felt they had nothing to fear from the weak creatures of Earth.

   C   After seeing smoke behind the Martian redoubt, the narrator has a thought that causes him to run eagerly toward another immobile machine.

   D   The remains of a Martian's body are hanging out of the hood of one of the machines.

3   Which statement is the **best** summary of paragraph 2?

   A   As the narrator approaches Primrose Hill, he finds more signs of the dying Martians.

   B   The narrator explores the area around the Zoological Gardens and the Regent's Canal.

   C   Curious about the crashed machine, the narrator makes his way toward Primrose Hill.

   D   Two Martian machines have mysteriously broken down, and the narrator investigates.

4 Which statement relating to paragraphs 4 and 5 would be **most** important to include in a summary of the end of the story?

A The narrator has to stand on the crest of the Martian fortification in order to see the scene in its interior.

B On the other side of the redoubt is a huge space with odd areas of shelter.

C The Martians are conquered by simple disease bacteria to which their bodies are not immune.

D The people of Earth should have recognized the importance of bacteria in defeating the Martians.

5 Write a brief and objective summary of this story. Remember to include the most important events, as well as at least **three** key details about characters and setting.

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Read the story. Then answer the questions that follow.

from *A Pair of Silk Stockings*

by Kate Chopin, 1876

1   Little Mrs. Sommers one day found herself the unexpected possessor of fifteen dollars. It seemed to her a very large amount of money, and the way in which it stuffed and bulged her worn old porte-monnaie[1] gave her a feeling of importance such as she had not enjoyed for years.

2   The question of investment was one that occupied her greatly. For a day or two she walked about apparently in a dreamy state, but really absorbed in speculation and calculation. She did not wish to act hastily, to do anything she might afterward regret. But it was during the still hours of the night when she lay awake revolving plans in her mind that she seemed to see her way clearly toward a proper and judicious use of the money.

3   A dollar or two should be added to the price usually paid for Janie's shoes, which would insure their lasting an appreciable time longer than they usually did. She would buy so and so many yards of percale[2] for new shirt waists for the boys and Janie and Mag. She had intended to make the old ones do by skillful patching. Mag should have another gown. She had seen some beautiful patterns, veritable bargains in the shop windows. And still there would be left enough for new stockings—two pairs apiece—and what darning that would save for a while! She would get caps for the boys and sailor-hats for the girls. The vision of her little brood looking fresh and dainty and new for once in their lives excited her and made her restless and wakeful with anticipation.

4   The neighbors sometimes talked of certain "better days" that little Mrs. Sommers had known before she had ever thought of being Mrs. Sommers. She herself indulged in no such morbid retrospection. She had no time—no second of time to devote to the past. The needs of the present absorbed her every faculty. A vision of the future like some dim, gaunt monster sometimes appalled her, but luckily to-morrow never comes.

5   Mrs. Sommers was one who knew the value of bargains; who could stand for hours making her way inch by inch toward the desired object that was selling below cost. She could elbow her way if need be; she had learned to clutch a piece of goods and hold it and stick to it with persistence and determination till her turn came to be served, no matter when it came.

6   But that day she was a little faint and tired. She had swallowed a light luncheon—no! when she came to think of it, between getting the children fed and the place righted, and preparing herself for the shopping bout, she had actually forgotten to eat any luncheon at all!

[1] **porte-monnaie:** a small pocketbook or wallet for carrying money
[2] **percale:** a kind of fabric usually used for making sheets and clothing

7   She sat herself upon a revolving stool before a counter that was comparatively deserted, trying to gather strength and courage to charge through an eager multitude that was besieging breastworks of shirting and figured lawn. An all-gone limp feeling had come over her and she rested her hand aimlessly upon the counter. She wore no gloves. By degrees she grew aware that her hand had encountered something very soothing, very pleasant to touch. She looked down to see that her hand lay upon a pile of silk stockings. A placard nearby announced that they had been reduced in price from two dollars and fifty cents to one dollar and ninety-eight cents; and a young girl who stood behind the counter asked her if she wished to examine their line of silk hosiery. She smiled, just as if she had been asked to inspect a tiara of diamonds with the ultimate view of purchasing it. But she went on feeling the soft, sheeny luxurious things—with both hands now, holding them up to see them glisten, and to feel them glide serpent-like through her fingers.

8   Two hectic blotches came suddenly into her pale cheeks. She looked up at the girl.

9   "Do you think there is any eights-and-a-half among these?"

10   There were any number of eights-and-a-half. In fact, there were more of that size than any other. Here was a light-blue pair; there were some lavender, some all black and various shades of tan and gray. Mrs. Sommers selected a black pair and looked at them very long and closely. She pretended to be examining their texture, which the clerk assured her was excellent.

11   "A dollar and ninety-eight cents," she mused aloud. "Well, I'll take this pair." She handed the girl a five-dollar bill and waited for her change and for her parcel. What a very small parcel it was! It seemed lost in the depths of her shabby old shopping-bag.

12   Mrs. Sommers after that did not move in the direction of the bargain counter. She took the elevator, which carried her to an upper floor into the region of the ladies' waiting-rooms. Here, in a retired corner, she exchanged her cotton stockings for the new silk ones which she had just bought. She was not going through any acute mental process or reasoning with herself, nor was she striving to explain to her satisfaction the motive of her action. She was not thinking at all. She seemed for the time to be taking a rest from that laborious and fatiguing function and to have abandoned herself to some mechanical impulse that directed her actions and freed her of responsibility.

1   This question has two parts. First, answer part A. Then, answer part B.

Part A

In the last paragraph, what does the reader understand about Mrs. Sommers that she probably does not understand herself?

A   She has just taken the silk stockings without paying.

B   She has forgotten how to behave properly in public.

C   She is not able to think clearly because she is so upset.

D   She longs for the life she had before she had children.

Part B

Which sentence from the passage **best** supports the answer to part A?

A   "Mrs. Sommers after that did not move in the direction of the bargain counter."

B   "She took the elevator, which carried her to an upper floor into the region of the ladies' waiting-rooms."

C   "Here, in a retired corner, she exchanged her cotton stockings for the new silk ones which she had just bought."

D   "She seemed for the time to be taking a rest from that laborious and fatiguing function and to have abandoned herself to some mechanical impulse that directed her actions and freed her of responsibility."

2   What does Mrs. Sommers' plan for using the money help the reader understand about what kind of person she is? Select all that apply.

A   Her plan shows that she enjoys spending money on herself.

B   Her plan shows that she is used to putting others before herself.

C   Her plan shows that she often does things without thinking.

D   Her plan shows that she does not really care about her family.

E   Her plan shows that she behaves practically and sensibly.

3 What effect does the author create by comparing the silk stockings to a "tiara of diamonds"?

   A The author expresses that the stockings are a luxury item.

   B The author implies that the stockings are shiny.

   C The author illustrates that the stockings are delicate.

   D The author suggests that the stockings are covered in jewels.

4 Which of the following choices **best** summarizes this passage?

   A After Mrs. Sommers comes into possession of fifteen dollars, she decides to use the money on clothes for her children. However, she ends up spending some of it on a pair of silk stockings for herself.

   B Mrs. Sommers goes to the store to buy a new pair of stockings. While there, she also purchases a variety of shoes, cloth, gown patterns, caps, and sailor-hats for her children.

   C Mrs. Sommers has an admirable plan for using the money she finds, but her good intentions don't last when she sees a beautiful pair of stockings. She spends all of the money on stockings.

   D When Mrs. Sommers comes into an unexpected sum of money, she sees an opportunity for providing her children with new clothing. She plans to use her knowledge of bargains as she shops.

5 Read the statements below. One describes a theme of the passage and the other describes how this theme is developed through the passage's setting. Find a sentence from the story that supports each statement. Then write it in the box beside the statement it supports.

		Support from the passage:
Theme	It can be difficult to live in the service of others.	
How the setting helps develop this theme	The setting of the store provides Mrs. Sommers with the option of doing something for herself.	Support from the passage:

Read the story. Then answer the questions that follow.

Ted's Champion

by Sam Hendricks

1   "There just isn't room for an animal that can't pull its own weight," Pops declared, briskly rubbing down the roan mare, a gentle horse that was popular with the local children. "That gray fellow won't take commands from kids, so what's the use of feeding him when nobody can ride him?" The little mare nodded her head, snorting gently, her tail flicking at the flies.

2   "He's a good horse, Olly is," Ted retorted. "So what if little kids can't manage him? He's a good one," he repeated, leaning over the stall and rubbing Olly's whiskered muzzle. "Anyway, I'll pay his keep if you won't." Olly nickered softly, pushing his muzzle against his favorite human being's palm. He smelled of oats and apples, and in his enormous eyes was a glint that Ted had to admit was a trifle mischievous—Olly had sent more than one child scrambling from the paddock.

3   "Well, that would be reasonable, if you had the cash, son," Pops answered, his expression hovering somewhere between a smile and a frown. "But you're in school most of the year, and a horse doesn't eat only in summertime. A horse is a full-time proposition, as you, of all people, ought to comprehend."

4   At dinner, the debate dragged on, Mom shaking her head while Pops and Ted argued at full volume. When she had heard enough, Mom interrupted, "Teddy, I know you love the horse, and Bob, I realize you can't afford his upkeep. So what I suggest, Teddy, is that you do some thinking and figure out what you can do about this situation. You might do some chores for the neighbors. Meanwhile, come help me carry this heavy platter over to the sink, and I'll heat up the pie." This pronouncement evidently closed the discussion—at least, for the moment.

5   Over the next few weeks, Ted visited every local store in search of work. He was willing to do anything to help out but no one had any work to offer him. He visited a few neighbors and asked if he could do some yardwork or chores for them. He inquired about washing cars and walking dogs, but by the end of the month Ted had no job offers or any way to earn extra money. He was still determined not to give up!

6   Early Saturday morning, just after dawn, Ted saddled Olly and eased him out of the paddock and then across the fields. He cantered for a mile, enjoying the stallion's confident gait, until they came up beside the Saunders' orchard. From their abundant acres rose a sweet aroma of ripening apples. As a small child, Ted had been delighted when Mrs. Saunders let him pick a few apples and carry them home in his cap.

7   As if summoned by Ted's memories, Mrs. Saunders appeared in her orchard, the sun glinting off her braid of pale hair. With long strides, the tall woman made her way through the trees until she was only a few yards from the boy and horse. Now that her husband had passed away she spent a lot of time in the orchard trying to maintain it and collect all of the apples to sell at the farmer's market in town.

8   "Good morning," she said, coming closer to Olly and taking his bridle in her hand. "You're up early. Teddy, isn't it?" Her eyes were no longer as sharp as they'd been when Teddy was only up to her knee, but as she looked him over, she recognized him without a doubt. "How are things going at the stable?" she inquired.

9   "Pretty well," Ted replied. "It seems like people will always pay for riding lessons, even if times aren't so great."

10   "Your father runs a good stable, that's why they keep coming. Are you giving riding lessons too? Seems like you'd be old and experienced enough."

11   "On Saturday afternoons, and whenever Pops can't keep up," Ted acknowledged. Without knowing it, he was frowning, one hand absently stroking Olly's coarse mane.

12   "You're on a fine horse there," Mrs. Saunders observed, drawing a rosy apple from a low hanging branch and offering it to Olly, who pulled back his lips and gently took the treat.

13   "He might not be mine much longer!" Ted suddenly blurted out. "But I won't give him up. No, I won't do it."

14   "What's all this about?" the woman asked, leading Olly by the bridle along the grassy path up to the farmhouse. His rider chewed on his lower lip, wondering how much to confide to this old acquaintance.

15   So Ted told her the whole story: how he'd offered to maintain his horse, his father's opposition, and the discouraging news that no one in the immediate vicinity seemed to require an extra hand at chores.

16   Mrs. Saunders brought Olly to the paddock and then led Ted into the kitchen, where the clock read just seven a.m. She made them glasses of iced tea and set out a plate of biscuits, then dried her hands on a dishtowel before taking a seat beside Ted. She thought about how tired she was from doing all the work in the orchard herself. Then an idea crossed her mind and she smiled at Ted.

17   "You're an early riser," Mrs. Saunders commented, "and you seem like a very able boy. Suppose I boarded Olly here? I only have two horses just now, one belonging to my granddaughter Caitlin, and it wouldn't stretch our budget too much to feed one boarder more. And in return, you could come early mornings, three times a week, say, and help out in the orchard? That seems like an advantageous bargain for both of us, wouldn't you agree?"

18   As Ted galloped back across the fields, he couldn't stop grinning. If Mrs. Saunders wanted him to harvest every bushel of apples her orchard produced, he wouldn't mind one bit. It was a great bargain and Ted was proud of himself that he hadn't given up. Olly ran with the speed and strength of a champion, Ted's champion, and the boy knew he would never, ever let him go.

Answer the questions.

1   What **most likely** motivates Mrs. Saunders to offer Ted a job?

    A   She decides that Olly is a fine horse.

    B   She knows that Ted has a practical father.

    C   She remembers him visiting the orchard as a small child.

    D   She believes that Ted will work hard to help her out.

2   Answer Parts A and B below.

Part A

Which of the following **best** states an important theme about life's difficulties as described in "Ted's Champion"?

    A   Children should always respect their parents' wishes.

    B   Persistence is the surest way to overcome any challenge.

    C   A horse that won't be ridden becomes a horse without a home.

    D   You should think twice about wanting what you cannot afford.

Part B

Select **three** pieces of evidence from "Ted's Champion" that support the correct answer to Part A.

☐ "'But you're in school most of the year, and a horse doesn't eat only in summertime.'"

☐ "'So what I suggest, Teddy, is that you do some thinking and figure out what you can do about this situation.'"

☐ "Over the next few weeks, Ted visited every local store in search of work."

☐ "He inquired about washing cars and walking dogs, but by the end of the month Ted had no job offers or any way to earn extra money."

☐ "As a small child, Ted had been delighted when Mrs. Saunders let him pick a few apples and carry them home in his cap."

☐ "Mrs. Saunders brought Olly to the paddock and then led Ted into the kitchen, where the clock read just seven a.m."

☐ "If Mrs. Saunders wanted him to harvest every bushel of apples her orchard produced, he wouldn't mind one bit."

3   Which details from the story **best** support the inference that Mrs. Saunders is a good businesswoman? Use details from the story to support your answer.

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4   The notes for a summary need to be arranged correctly into the order in which the events occur in the passage. Indicate the correct chronological order of the events below by writing the numbers 1 to 6 on the blanks before each sentence.

_____ Ted tells Mrs. Saunders about his efforts to keep Olly.

_____ Ted visits local stores looking for work.

_____ Pops tells Ted he wants to get rid of Olly.

_____ Mrs. Saunders offers Ted a job at the apple orchard.

_____ The family debates the issue of keeping Olly.

_____ Ted rides Olly by the orchard early on a Saturday morning.

Performance Task—Extended Response

9

In the story, Ted has a problem that he needs to solve. Which events and details in the story reveal Ted's character as determined?? What decision does he finally make? Write an essay of at least three paragraphs, using details from the story to explain your answer.

In your answer, be sure to

- explain which events and details reveal Ted's character
- identify Ted's problem in the story and what decision he makes
- use details and events from the story

Check your writing for correct spelling, grammar, capitalization, and punctuation.

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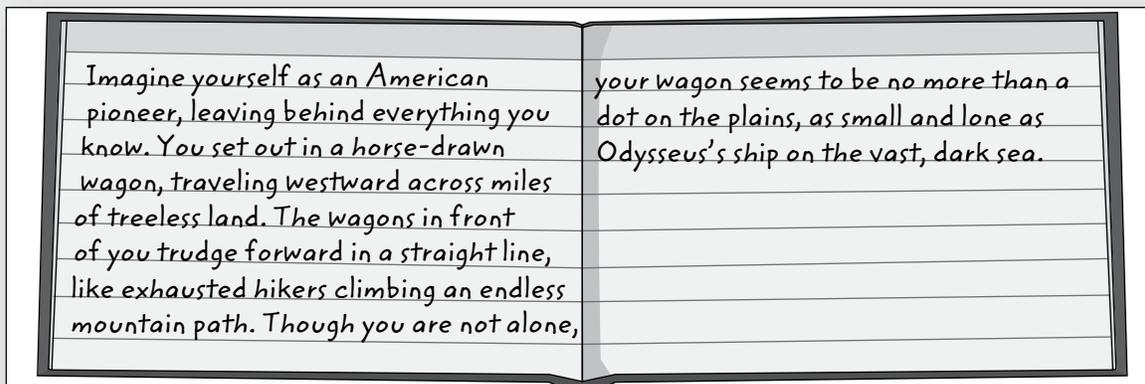
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Analyzing Word Choice

Theme: *Challenging Journeys*

Have you ever explained something by saying, "It's just like . . . "? If so, you were making a comparison, or **analogy**, to help someone understand an unfamiliar thing or idea. Similarly, have you ever gone to a new or odd place and heard someone say, "We're not in Kansas anymore"? That was an **allusion**—a reference to an event or character in a literary work. In this case, the words are borrowed from Dorothy in *The Wonderful Wizard of Oz*.

Allusions and analogies are just two examples of how writers carefully choose words to express their ideas. An author's word choice can create vivid mental images that directly affect your understanding of a text's meaning.

Look at one student's response to a history assignment. What does the student's word choice, including the use of analogy and allusion, tell you about the pioneers' journey?

Imagine yourself as an American pioneer, leaving behind everything you know. You set out in a horse-drawn wagon, traveling westward across miles of treeless land. The wagons in front of you trudge forward in a straight line, like exhausted hikers climbing an endless mountain path. Though you are not alone, your wagon seems to be no more than a dot on the plains, as small and lone as Odysseus's ship on the vast, dark sea.

Underline the allusion and the analogy in the text above. Then read the chart below to see how word choice affects the text's meaning.

Word Choice	Type	Impact on Meaning
"like exhausted hikers climbing an endless mountain path"	analogy	helps readers visualize the line of wagons and connects to the idea of going on a long, slow journey
"Odysseus's ship on the vast, dark sea"	allusion	compares the pioneers' journey to Odysseus's 10-year journey homeward in the ancient Greek epic, *The Odyssey;* elevates it to "epic" proportions

Think about how this text would have been different if the author had just written that the wagons were moving slowly or that the journey was long and lonely. How would the change in word choice affect your mental image of the paragraph? When authors add analogies and allusions to a text, they encourage readers to make connections to broader or more familiar ideas. Making these connections gives the text new, richer layers of meaning.

Read the first two paragraphs of a biography of Amelia Earhart.

Genre: **Biography**

Amelia Earhart: First in Flight *by Adele Lin*

As a young girl, Amelia Earhart kept a scrapbook of articles about women known for great accomplishments in fields otherwise dominated by men, such as film directing, law, and mechanical engineering. Was this what propelled her to excel later, or was it simply an early sign that she was born to excel? Though Earhart's fascination with air navigation did not begin until she was in her early twenties, she pursued her course as ardently as Olympic athletes pursue their goals.

Her list of "firsts" is long and impressive. In 1928, she was the first woman to fly across the Atlantic, though she did not pilot that flight. Then, in 1932, she became the first woman to fly solo across the Atlantic. As a result, she was the first woman to receive a Distinguished Flying Cross—a medal of honor—from Congress. Three years later, she became the first person to fly solo across the Pacific. Such firsts laid the foundation for her ultimate challenge—to fly around the world.

(continued)

Explore how to answer this question: *"Select one word and one phrase from this biography. What is the impact of both the word and the phrase on the biography's meaning and tone?"*

Smart authors choose their words and phrases carefully. They want such words and phrases to have specific effects on their readers—to get their readers to think and feel a certain way.

The chart below shows an analysis of the impact of the word *excel* on the text. Analyze the analogy in the second row by determining its impact on the text's meaning and tone.

Word Choice	Impact on Meaning	Impact on Tone
"excel"	leads readers to expect that Earhart did more than just achieve her goals; she went far beyond anyone's expectations	*excel* has positive connotations; the author seems to admire Earhart
"as ardently as Olympic athletes pursue their goals"		

With a partner, discuss how the meaning or tone of the text would be different if the author had said that Earhart was *obsessed* with flying.

Continue reading about Amelia Earhart. Use the Close Reading and the Hint to help you answer the question.

Close Reading

Think about the author's word choices. Find and **underline** an allusion and words or phrases that suggest tone.

(continued from page 20)

Earhart's first attempt at circling the globe not only failed, but failed disastrously. Yet three months later, in June 1937, she and her navigator risked a second attempt in a freshly rebuilt plane. The flight's events are well documented based on refueling stops and radio communications. But in the last leg of the trip, Earhart had to fly 2,500 miles over the Pacific and then locate and land on a tiny island to refuel. Clouds made accurate navigation difficult. Then, after radio contact ceased at 8:45 a.m. on July 2, information about the plane's whereabouts became mere guesswork. As in the story of Icarus, the mythical figure who plunged into the ocean when his wax wings melted, Earhart's greatest challenge became her final flight.

Hint

Think about how the author's word choice conveys her attitude toward Earhart. What aspect of the Icarus myth is consistent with this attitude?

Circle the correct answer.

How does the allusion to Icarus support the author's tone?

A It makes it clear that Earhart, like Icarus, fell to her death.

B It emphasizes Earhart's failure in spite of her ambition.

C It stresses that the author views Earhart's fate as a mystery.

D It shows that the author sees Earhart as a kind of legend.

Show Your Thinking

Explain why your choice is the best explanation of how the Icarus allusion affects the text's tone.

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