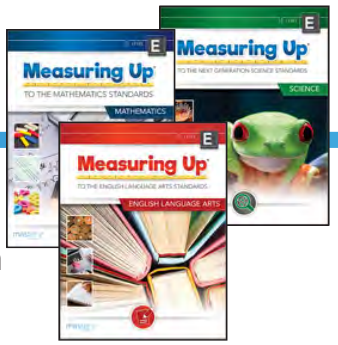
Try It Out! Sample Pack | Math | Grade 7 | Lesson 14
Measuring Up to the Standards



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- 1 full student lesson with complete Teacher Edition lesson
- 1 full Table of Contents for your grade level
- Correlation to the standards

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Lesson 14

WRITE EQUATIONS TO SOLVE PROBLEMS 7.EE.A.2, 7.EE.B.4, 7.EE.B.4.a

WORD TO KNOW

equation

INTRODUCTION

Real-World Connection

Dante had $22 to spend at the amusement park. The price of every ride was the same. After 8 rides, Dante had $2.80 left. What was the cost of each ride? Let's practice the skills in the **Guided Instruction** and **Independent Practice** and see how much each ride cost at the end of the lesson!

What I Am Going to Learn

- How to write and solve equations that represent real-world problems

What I May Already Know 6.EE.A.2, 6.EE.B.7

- I know how to write, read, and evaluate expressions with variables.
- I know how to solve real-world problems by writing and solving one-step equations.

Vocabulary in Action

Word problems can be solved by writing an **equation** to represent the problem.

- Use information from the problem to identify the parts in the equation. Look for clues to determine the variable, coefficient, constant, and the operation(s).
- Write an equation, deciding which terms go on which side of the equal sign.
- Solve the equation and check your answer.

THINK ABOUT IT

You could reason about the problem without using a variable: 902.40 − 879.99, the cost of the computer, leaves 22.41 for the paper. 22.41 ÷ 2.49, the cost per pack, is 9. Notice, though, that the steps are the same.

EXAMPLE

Cameron spent a total of $902.40 on a new computer and packs of computer paper. The computer cost $879.99, and each pack of computer paper cost $2.49. How many packs of computer paper did he buy?

Step One Identify the parts in the equation.

$902.40 is the total, and will be on one side of the equation.

$879.99 is a constant and will be added to the cost of the paper.

$2.49 is a coefficient, multiplied by the unknown number of packs.

p will be the number of packs of paper.

Step Two Write the equation.

$$902.40 = 2.49p + 879.99$$

Step Three Solve the equation.

$$902.40 - 879.99 = 2.49p + 879.99 - 879.99$$

$$22.41 = 2.49p$$

$$\frac{22.41}{2.49} = \frac{2.49p}{2.49}$$

$$9 = p$$

Step Four Check the answer.

$$2.49(9) + 879.99 = 902.40$$

$$22.41 + 879.99 = 902.40$$

$$902.40 = 902.40$$

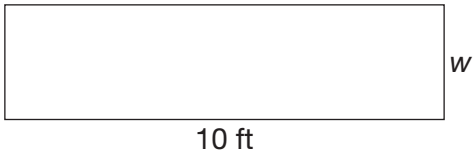
Step Five Interpret the solution to the equation.

Cameron bought 9 packs of computer paper.

Many problems are easier to solve using a variable.

EXAMPLE

The perimeter of a rectangular garden is 32 feet. The length of the garden is 10 feet. What is the width, in feet, of the garden?



The perimeter of 32 feet is the total and is a constant. It will be on one side of the equation. Like any perimeter equation, p = the sum of the side lengths. Two side lengths are known, 10 and 10. Two side lengths are not known, but are the same length, w.

$$32 = 10 + 10 + w + w$$

$$32 = 20 + 2w$$

$$32 - 20 = 20 - 20 + 2w$$

$$12 = 2w$$

$$\frac{12}{2} = \frac{2w}{2}$$

$$6 = w$$

Check: $10 + 10 + 6 + 6 = 32$

The width of the garden is 6 feet.

TURN AND TALK

If the garden had a perimeter of 40 feet, how would that change the width?

GUIDED INSTRUCTION

1. **Xavier had $45 to spend on clothes. He bought some T-shirts that cost $4.25 each, including tax. After shopping, Xavier had $19.50 left. How many T-shirts did he buy?**

Step One Identify the parts in the equation.

$45 is a constant, the amount he has to spend, and will be on one side of the equation.

$19.50 is the amount left and will be added to the cost of the T-shirts to equal $45.

$4.25 is the coefficient, multiplied by the number of T-shirts.

The number of T-shirts is unknown, so it is the variable, t.

TIPS AND TRICKS

Always check your answer. You should check the math, but also check if your answer is reasonable for the context of the word problem.

Step Two Write the equation.

$\square = 4.25t + 19.50$

Step Three Solve the equation.

$$45 = 4.25t + 19.50$$
$$45 - 19.50 = 4.25t - 19.50$$
$$25.50 = 4.25t$$
$$\frac{25.50}{4.25} = \frac{4.25t}{4.25}$$
$$\square = t$$

Step Four Check your answer.

$45 = 4.25(6) + 19.50$

$45 = 25.50 + 19.50$

$45 = 45$

Step Five Interpret the solution to the equation.

Xavier bought $\square$ T-shirts.

HINT, HINT

Choose a variable to represent the least number. Then represent the next consecutive odd number in terms of that variable. Represent the third number in terms of the first number.

2. The sum of three consecutive odd numbers is 63. What is the greatest of these numbers?

Ⓐ 19

Ⓑ 21

Ⓒ 23

Ⓓ 63

How Am I Doing?

What questions do you have?

How do you decide what to use as the variable in a real-world problem?

If you had a certain amount of money to spend, say $50, and you knew you wanted a $12 item, how could you figure out many $5 items you could buy?

TURN AND TALK

Work with a partner to solve the following problem. The Bard Box company manufactures boxes for $0.35 each and sells them for $0.75. The company had an initial startup cost of $8,000. Explain how you can calculate the number of boxes the company must sell to earn a profit of $3,000. At what point will the company break even?

Color in the traffic signal that shows how you are doing with the skill.

INDEPENDENT PRACTICE

Answer the questions.

1. Francis spent $41.50 at a garden show. He bought a large pot for $29 and some plants for $2.50 each. How many plants did Francis buy?

   Write your answer in the box.

   [ ] plants

TIPS AND TRICKS

If you are unsure how to solve algebraically, try each answer choice to see which works.

2. A school trip to the zoo costs $36, which includes $8 for the bus ticket and the cost for 2 passes. Both passes cost the same amount. What is the cost of each pass?

   Ⓐ $8

   Ⓑ $14

   Ⓒ $20

   Ⓓ $28

HINT, HINT

Each number in the series will be two more than the number before it. Write an equation and then solve it.

3. Circle the number that correctly completes the statement.

   The sum of three consecutive odd numbers is 39.

   The value of the least number is [ ].

   7

   9

   11

   13

   15

4. Jenna and her two friends bought one movie ticket each. They shared a popcorn that cost $6.50. They spent $32.00 in all. What was the cost of one movie ticket?

   Write your answer in the box.

   $ [ ]

5. A rectangle has a width of 14 centimeters and a perimeter of 72 centimeters.

Circle the number that correctly completes the statement.

The length of the rectangle is [14 / 22 / 28 / 44 / 58] cm.

6. Paul spent $36 on books and $4.25 each on magazines. He spent a total of $57.25. Write and solve an equation to find the number of magazines Paul bought.

7. Part A

Connie bought a new desk for $87.50 and a few lamps for $20.50 each. She spent a total of $149.00. How many lamps did Connie buy? Write an arithmetic equation to represent the problem. Solve the equation to find the number of lamps.

Part B

Write an algebraic equation to represent the problem from Part A. Solve the equation to find the number of lamps.

SKETCH IT

Use the work space below to draw a picture to help solve the problem.

WORK SPACE

EXIT TICKET

7.EE.A.2, 7.EE.B.4, 7.EE.B.4.a

Now that you have mastered writing and solving real-world equations, let's solve the problem in the Real-World Connection.

Dante had $22 to spend at the amusement park. The price of every ride was the same. After 8 rides, Dante had $2.80 left. What was the cost of each ride?

ANNOTATED
TEACHER EDITION

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CONTENTS

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Chapter 1 RATIOS AND PROPOSITIONS

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Chapter 4 GEOMETRY

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References

CORRELATIONS

Correlation to the Common Core State Standards

This worktext is customized to the Common Core State Standards for Mathematics.
Most lessons focus on one content standard for in-depth review.
Mathematical Practices are interwoven throughout each lesson to connect practices to content at point-of-use and promote depth of understanding.

Common Core State Standards	Lessons
8.NS The Number System	
A. Know that there are numbers that are not rational, and approximate them by rational numbers.	
1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.	1
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., π^2). *For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*	2
8.EE Expressions and Equations	
A. Work with radicals and integer exponents.	
1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, $3^2 \times 3^{-5} = 3^{-3} = \frac{1}{3^3} = \frac{1}{27}$.*	3
2. Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational.	4
3. Use numbers expressed in the form of a single digit times a whole-number power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as 3 times 10^8 and the population of the world as 7 times 10^9, and determine that the world population is more than 20 times larger.*	5
4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.	6
B. Understand the connections between proportional relationships, lines, and linear equations.	
5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*	7
6. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y = mx$ for a line through the origin and the equation $y = mx + b$ for a line intercepting the vertical axis at b.	8

CORRELATIONS

Common Core State Standards	Lessons
C. Analyze and solve linear equations and pairs of simultaneous linear equations.	
7. Solve linear equations in one variable.	9, 10
a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).	9
b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	10
8. Analyze and solve pairs of simultaneous linear equations.	11, 12, 13
a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.	11
b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, $3x + 2y = 5$ and $3x + 2y = 6$ have no solution because $3x + 2y$ cannot simultaneously be 5 and 6.*	11, 12
c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*	13
8.F Functions	
A. Define, evaluate, and compare functions.	
1. 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.	14
2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*	15
3. 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. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*	16
B. Use functions to model relationships between quantities.	
4. 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.	17
5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.	18

Common Core State Standards	Lessons
8.G Geometry	
A. Understand congruence and similarity using physical models, transparencies, or geometry software.	
1. Verify experimentally the properties of rotations, reflections, and translations:	19
a. Lines are taken to lines, and line segments to line segments of the same length.	19
b. Angles are taken to angles of the same measure.	19
c. Parallel lines are taken to parallel lines.	19
2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.	20
3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	21, 22, 23, 24
4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.	25
5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.*	26, 27
B. Understand and apply the Pythagorean Theorem.	
6. Explain a proof of the Pythagorean Theorem and its converse.	28
7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	29
8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.	30
C. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	
9. Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.	31
8.SP Statistics and Probability	
A. Investigate patterns of association in bivariate data.	
1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.	32, 33
2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.	34

Common Core State Standards	Lessons
3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*	34
4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*	35, 36

Lesson 14

WRITE EQUATIONS TO SOLVE PROBLEMS 7.EE.A.2, 7.EE.B.4, 7.EE.B.4.a

WORD TO KNOW

equation

INTRODUCTION

Real-World Connection

Dante had $22 to spend at the amusement park. The price of every ride was the same. After 8 rides, Dante had $2.80 left. What was the cost of each ride? Let's practice the skills in the Guided Instruction and Independent Practice and see how much each ride cost at the end of the lesson!

What I Am Going to Learn

- How to write and solve equations that represent real-world problems

What I May Already Know 6.EE.A.2, 6.EE.B.7

- I know how to write, read, and evaluate expressions with variables.
- I know how to solve real-world problems by writing and solving one-step equations.

Vocabulary in Action

Word problems can be solved by writing an equation to represent the problem.

- Use information from the problem to identify the parts in the equation. Look for clues to determine the variable, coefficient, constant, and the operation(s).
- Write an equation, deciding which terms go on which side of the equal sign.
- Solve the equation and check your answer.

THINK ABOUT IT

You could reason about the problem without using a variable: 902.40 − 879.99, the cost of the computer, leaves 22.41 for the paper. 22.41 ÷ 2.49, the cost per pack, is 9. Notice, though, that the steps are the same.

EXAMPLE

Cameron spent a total of $902.40 on a new computer and packs of computer paper. The computer cost $879.99, and each pack of computer paper cost $2.49. How many packs of computer paper did he buy?

Step One Identify the parts in the equation.

$902.40 is the total, and will be on one side of the equation.

$879.99 is a constant and will be added to the cost of the paper.

$2.49 is a coefficient, multiplied by the unknown number of packs.

p will be the number of packs of paper.

Step Two Write the equation.

$$902.40 = 2.49p + 879.99$$

Step Three Solve the equation.

$$902.40 - 879.99 = 2.49p + 879.99 - 879.99$$

$$22.41 = 2.49p$$

$$\frac{22.41}{2.49} = \frac{2.49p}{2.49}$$

$$9 = p$$

Step Four Check the answer.

$$2.49(9) + 879.99 = 902.40$$

$$22.41 + 879.99 = 902.40$$

$$902.40 = 902.40$$

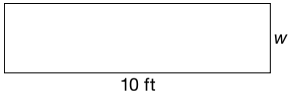
Step Five Interpret the solution to the equation.

Cameron bought 9 packs of computer paper.

Many problems are easier to solve using a variable.

EXAMPLE

The perimeter of a rectangular garden is 32 feet. The length of the garden is 10 feet. What is the width, in feet, of the garden?



The perimeter of 32 feet is the total and is a constant. It will be on one side of the equation. Like any perimeter equation, p = the sum of the side lengths. Two side lengths are known, 10 and 10. Two side lengths are not known, but are the same length, w.

$$32 = 10 + 10 + w + w$$

$$32 = 20 + 2w$$

$$32 - 20 = 20 - 20 + 2w$$

$$12 = 2w$$

$$\frac{12}{2} = \frac{2w}{2}$$

$$6 = w$$

Check: $10 + 10 + 6 + 6 = 32$

The width of the garden is 6 feet.

TURN AND TALK

If the garden had a perimeter of 40 feet, how would that change the width?

GUIDED INSTRUCTION

1. **Xavier had $45 to spend on clothes. He bought some T-shirts that cost $4.25 each, including tax. After shopping, Xavier had $19.50 left. How many T-shirts did he buy?**

Step One Identify the parts in the equation.

$45 is a constant, the amount he has to spend, and will be on one side of the equation.

$19.50 is the amount left and will be added to the cost of the T-shirts to equal $45.

$4.25 is the coefficient, multiplied by the number of T-shirts.

The number of T-shirts is unknown, so it is the variable, t.

TIPS AND TRICKS

Always check your answer. You should check the math, but also check if your answer is reasonable for the context of the word problem.

Step Two Write the equation.

45 $= 4.25t + 19.50$

Step Three Solve the equation.

$$45 = 4.25t + 19.50$$
$$45 - 19.50 = 4.25t - 19.50$$
$$25.50 = 4.25t$$
$$\frac{25.50}{4.25} = \frac{4.25t}{4.25}$$
$$6 = t$$

Step Four Check your answer.

$45 = 4.25(6) + 19.50$

$45 = 25.50 + 19.50$

$45 = 45$

Step Five Interpret the solution to the equation.

Xavier bought 6 T-shirts.

HINT, HINT

Choose a variable to represent the least number. Then represent the next consecutive odd number in terms of that variable. Represent the third number in terms of the first number.

2. The sum of three consecutive odd numbers is 63. What is the greatest of these numbers?

Ⓐ 19
Ⓑ 21
Ⓒ 23
Ⓓ 63

How Am I Doing?

What questions do you have?

How do you decide what to use as the variable in a real-world problem?

If you had a certain amount of money to spend, say $50, and you knew you wanted a $12 item, how could you figure out many $5 items you could buy?

TURN AND TALK

Work with a partner to solve the following problem. The Bard Box company manufactures boxes for $0.35 each and sells them for $0.75. The company had an initial startup cost of $8,000. Explain how you can calculate the number of boxes the company must sell to earn a profit of $3,000. At what point will the company break even?

Color in the traffic signal that shows how you are doing with the skill.

INDEPENDENT PRACTICE

Answer the questions.

1. Francis spent $41.50 at a garden show. He bought a large pot for $29 and some plants for $2.50 each. How many plants did Francis buy?

   Write your answer in the box.

   5 plants

TIPS AND TRICKS

If you are unsure how to solve algebraically, try each answer choice to see which works.

2. A school trip to the zoo costs $36, which includes $8 for the bus ticket and the cost for 2 passes. Both passes cost the same amount. What is the cost of each pass?

   Ⓐ $8
   Ⓑ $14
   Ⓒ $20
   Ⓓ $28

HINT, HINT

Each number in the series will be two more than the number before it. Write an equation and then solve it.

3. Circle the number that correctly completes the statement.

   The sum of three consecutive odd numbers is 39.

   The value of the least number is .

   7
   9
   (11)
   13
   15

4. Jenna and her two friends bought one movie ticket each. They shared a popcorn that cost $6.50. They spent $32.00 in all. What was the cost of one movie ticket?

   Write your answer in the box.

   $ 8.50

5. A rectangle has a width of 14 centimeters and a perimeter of 72 centimeters.

   Circle the number that correctly completes the statement.

   The length of the rectangle is cm.

   14
   (22)
   28
   44
   58

6. Paul spent $36 on books and $4.25 each on magazines. He spent a total of $57.25. Write and solve an equation to find the number of magazines Paul bought.

   Sample answer: $36 + 4.25x = 57.25$
   $4.25x = 21.25$
   $x = 5$

7. **Part A**

   Connie bought a new desk for $87.50 and a few lamps for $20.50 each. She spent a total of $149.00. How many lamps did Connie buy? Write an arithmetic equation to represent the problem. Solve the equation to find the number of lamps.

   Sample answer:
   $149.00 − $87.50 = $61.50
   $61.50 ÷ $20.50 = 3 lamps

Part B

Write an algebraic equation to represent the problem from Part A. Solve the equation to find the number of lamps.

Sample answer:
$87.50 + 20.50x = 149.00$
$20.50x = 61.50$
$x = 3$ lamps

SKETCH IT

Use the work space below to draw a picture to help solve the problem.

WORK SPACE

EXIT TICKET

7.EE.A.2, 7.EE.B.4, 7.EE.B.4.a

Now that you have mastered writing and solving real-world equations, let's solve the problem in the Real-World Connection.

Dante had $22 to spend at the amusement park. The price of every ride was the same. After 8 rides, Dante had $2.80 left. What was the cost of each ride?

$2.40

$22 is the amount Dante has to spend. It is a constant and will be on one side of the equation.

$2.80 is a constant and is added to the cost of the rides to get the total of $22.

8 is the coefficient that is multiplied by the cost of each ride.

The cost of a ride is unknown, so it is the variable, c.

$$22 = 8c + 2.8$$
$$22 - 2.8 = 8c + 2.8 - 2.8$$
$$19.2 = 8c$$
$$\frac{19.2}{8} = \frac{8c}{8}$$
$$2.4 = c$$

Check:

$22 = 8(2.4) + 2.8 = 19.2 + 2.8 = 22$

So, each ride cost $2.40.

TEACHER NOTES

REAL-WORLD GOAL FOR STUDENTS

- Students will understand how to write and solve equations representing real-world problems.

TIPS FOR THE STRUGGLING LEARNER

- Students may struggle with writing an equation to represent a problem. Students should ask these questions: What am I trying to find? What is unknown (the variable)? What information do I know? Encourage students to follow the same steps each time and identify the parts of the equation.
- Students should continue to check their answers by substitution. If they are not doing the same math in reverse, and seeing the same numbers, they know something is wrong. They should also check the answer to make sure it makes sense in context. An unrealistic answer suggests a problem in the math.

TIPS FOR THE ENGLISH LANGUAGE LEARNER

- English learners may struggle with the amount of vocabulary in a word problem. Encourage them to underline key words and look up the definitions of unfamiliar words.
- Review words such as *coefficient, variable, and constant.* Remind English learners that the variable is the unknown, the coefficient is the number multiplied by the variable, and the constant is a number that is not multiplied by a variable.

ACTIVITIES FOR THE ADVANCED LEARNER

- Students can start with an equation and write a word problem that could be solved using that equation.
- Students can solve problems that include the Distributive Property: John has $75 to spend. He buys 5 shirts that each cost the same and 5 hats that each cost $7.50. If he spends all of his money, how much does each shirt cost?
- Students can solve problems where the solution is not a whole number and must be interpreted: How many hats can he buy? If the answer is 4.3, he can buy 4 hats, but not 5. This will serve as an informal introduction to inequalities.