Lesson 14: Unit Test

Getting Started

? Questions to Explore

- How do we add and subtract large numbers?
- What are some strategies we can use to multiply and divide?
- How do we use the four math operations to solve problems and complete patterns?
- How are factors and multiples related?
- What are prime and composite numbers?
- What is an equation?
- How can we use the four operations to figure out unknown numbers?

⊙ Skills

- Fluently add and subtract multi-digit whole numbers using the standard algorithm
- Find products and quotients
- Identify multiples and factors
- Determine whether a given whole number in the range 1-100 is prime or composite
- Solve equations
- Represent problems using equations with a letter standing for the unknown quantity
- Solve word problems posed with whole numbers and having whole-number answers
- Recognize and apply patterns

✂ Materials

- ✓ fine point dry-erase markers (kit)
- ✓ whiteboard (kit)
- ✓ Interactive Notebook

Introduction

Write the following numbers on the whiteboard: 26, 17, 9, 5, 21, 36, and 25. Now pose the following questions:

- Which of these numbers are prime? (17, 5)
- Which of these numbers are composite? (26, 9, 21, 36, 25)
- Which of these numbers are divisible by 2? (26, 36)
- Which of the numbers are divisible by 3? (9, 21, 36)
- What are all of the factors of 21? (1, 3, 7, 21)
- Is 4 a factor of 26? (no)
- Which 3 numbers can you use to make an equation? (17+9=26)

Now, ask your child to find the answers to the following division problems using the long division symbol. As needed, remind her to refer to the "Steps in Basic Long Division" sheet in her Interactive Notebook.

- 28÷7 (4)
- 35÷5 (7)
- 56÷7 (8)

Activities

Unit Review

Your child will complete the "Unit 2 Test Review" sheets. Before she takes the "Unit 2 Test," check her work on these sheets and review her mistakes with her. Allow her to look through her Interactive Notebook as needed as she reviews for the test. Also encourage her to look through the "Unit Review Sheet," which compiles the information from each lesson's "Facts and Definitions" section into one list. The page is located at the front of hard-copy curriculum units. Online users can view or print the page at the following web link.

Unit Review Sheet
www.movingbeyondthepage.com/link/7706/

Answer Key:

1. Capital City has a population of 252,127 people, and Central City has a population of 307,811. What is the total population of the two cities? (559,938)
2. An amusement park had $435,180 to spend for a new ride. It cost $389,562 to build the ride. How much money did the amusement park have left over? ($45,618)
3. 5×6=6×5 is an example of the commutative property.
4. (4×2)×5=4×(2×5) is an example of the associative property.
5. The zero property of multiplication says that the product of any number and zero is zero.
6. The identify property of multiplication says that the product of any number and one is that number.
7. 14 × 8 = (10 x 8) + (4 x 8) is an example of the distributive property.
8. What are the first six multiples of 3? (3, 6, 9, 12, 15, 18)
9. Use a factor rainbow to find the factors of 30. (1, 2, 3, 5, 6, 10, 15, 30)
10. The prime numbers are 2 and 7.
11. The composite numbers are 6, 9, 10, and 15.

12. Find the quotient.

11 R2

$$
\begin{array}{r}
3\overline{)35} \\
-\mathbf{3} \\
\hline
\mathbf{05} \\
-\mathbf{3} \\
\hline
\mathbf{2}
\end{array}
$$

13. Complete the table. Write the rule.

In	Out
1	4
2	**8**
3	12
4	16
5	**20**

Rule: **multiply by 4**

14. George had 6 model cars. He bought some more cars and now George has 12 model cars. (6 + n = 12; n = 6)
15. Susie walked three times as many dogs as Lindy. Lindy walked 5 dogs. How many dogs did Susie walk? (5 × 3 = n; n = 15)

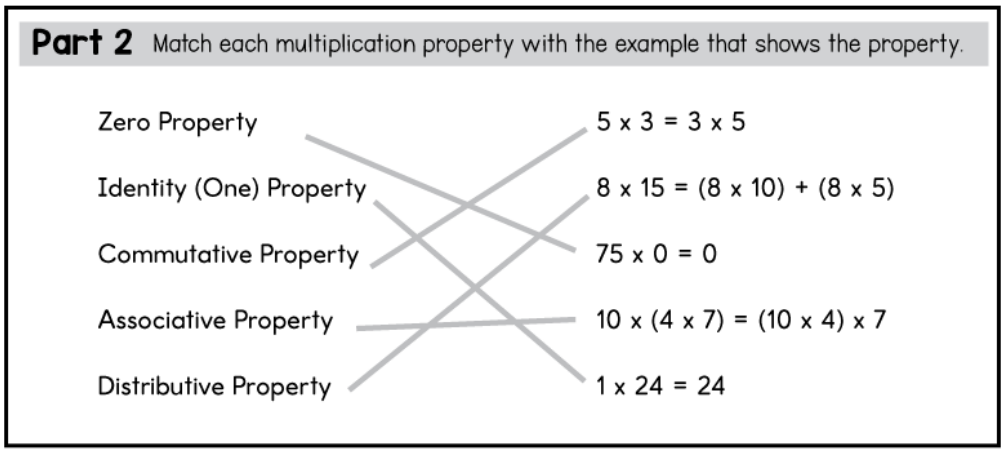
Unit Test

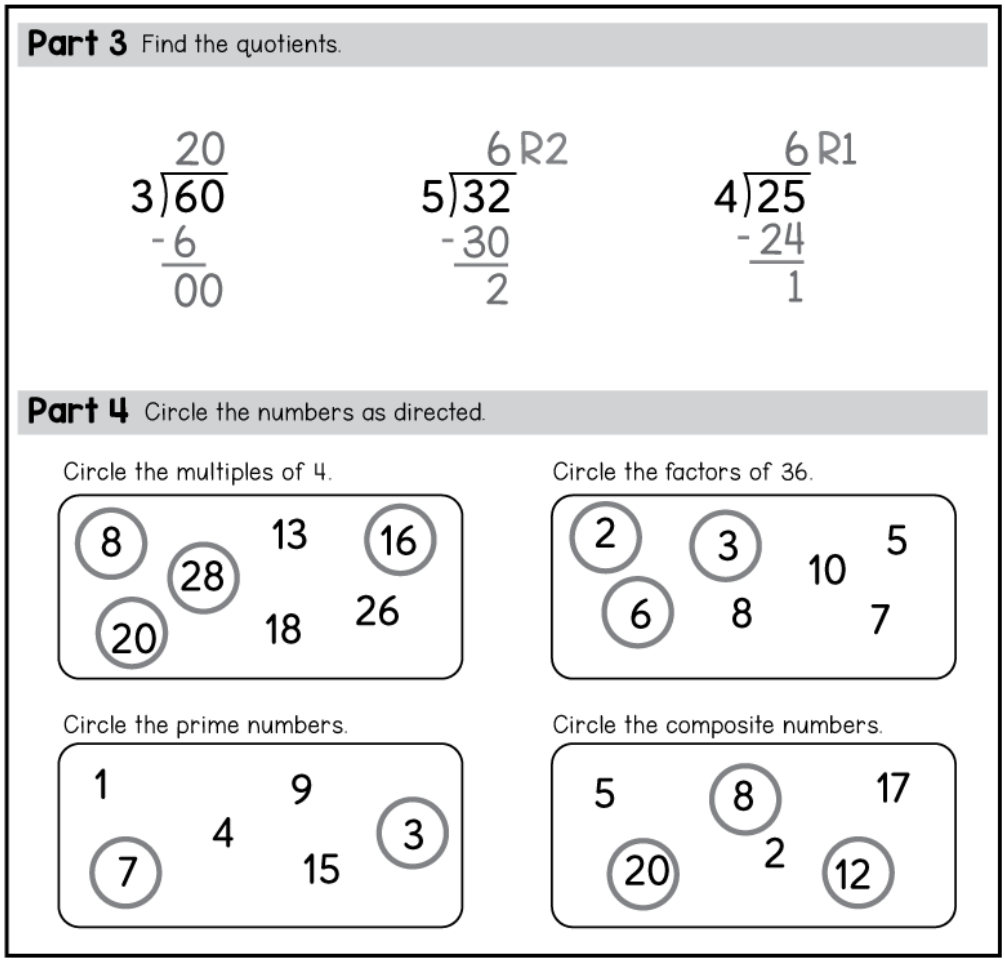
Your child will complete the "Unit 2 Test." Tell her to work carefully and to read each instruction or question more than once to make sure that she understands what to do. If needed, answer her questions about what she needs to do, but don't give her any answers to the items themselves.

Answer Key:

Part 1

- How much did the hospital raise in March and April combined? ($19,279)
- If the goal was to raise $15,000 in May, how much more did the hospital need to raise that month? ($443)
- Last year, 275,084 people visited the art museum and 344,196 people visited the science museum. How many people visited the museums all together?
(619,280 people)
- There were 152,300 packages of cookies in the warehouse. If 96,295 packages were shipped, how many packages of cookies are left in the warehouse?
(56,005 packages)





Part 5

- 12 + x = 23 (x = 11)
- a ÷ 3 = 8 (a = 24)
- b − 10 = 35 (b = 45)
- n × 7 = 49 (n = 7)

Part 6

- For a recycling project, Lance collected four times as many cans as Sean collected. Sean collected 15 cans. How many cans did Lance collect? (4 × 15 = n)
- Martha earned $28 babysitting. Now she has $55. How much money did she start with? (b + 28 = 55)
- Emily has enough M&Ms to give 6 friends 8 M&Ms each. How many M&Ms does he have? (n ÷ 6 = 8)

Part 7 Find the rule and fill in the missing numbers.

In	Out
1	3
2	6
3	9
4	12
5	15

Rule: multiply by 3

Wrapping Up

Conclusion

Review with your child any mistakes that she made on the Unit 2 Test. Look for patterns in her mistakes, and if she seems to be struggling with a particular skill, provide time for her to practice it some more.

Unit 2 Test Review

Instructions: Add or subtract to answer the questions.

1. Capital City has a population of 252,127 people, and Central City has a population of 307,811. What is the total population of the two cities?	2. An amusement park had $435,180 to spend for a new ride. It cost $389,562 to build the ride. How much money did the amusement park have left over?

Instructions: Use the terms in the box to fill in the blanks.

identity	**distributive**	**associative**	**dividend**
multiple	**zero**	**factor**	**commutative**

3. 5x6=6x5 is an example of the _____ property.

4. (4x2)x5=4x(2x5) is an example of the _____ property.

5. The _____ property of multiplication says that the product of any number and zero is zero.

6. The _____ property of multiplication says that the product of any number and one is that number.

7. 14 x 8 = (10 x 8) + (4 x 8) is an example of the _____ property.

Instructions: Answer the questions.

8. What are the first six multiples of 3?

9. Use a factor rainbow to find the factors of 30.

10. Circle the prime numbers.

1, 2, 4, 7, 9, 12

11. Circle the composite numbers.

1, 2, 6, 9, 10, 15

Instructions: Solve each problem.

12. Find the quotient.

$3\overline{)35}$

13. Complete the table. Write the rule.

In	Out
1	4
2	
3	12
4	16
5	

Rule: _____

Instructions: Circle the correct equation for each problem. Then find the value of the variable.

14. George had 6 model cars. He bought some more cars and now George has 12 model cars.

$6 + n = 12$ $6 - n = 12$ $12 \times 6 = n$

n =

15. Susie walked three times as many dogs as Lindy. Lindy walked 5 dogs. How many dogs did Susie walk?

$3 + n = 5$ $n - 3 = 5$ $5 \times 3 = n$

n =

Unit 2 Test

Part 1 Use addition and subtraction to answer the questions.

The local hospital received the following donations in these months:

March	$12,540
April	$6739
May	$14,557
June	$11,438

How much did the hospital raise in March and April combined?

If the goal was to raise $15,000 in May, how much more did the hospital need to raise that month?

Last year, 275,084 people visited the art museum and 344,196 people visited the science museum. How many people visited the museums all together?

There were 152,300 packages of cookies in the warehouse. If 96,295 packages were shipped, how many packages of cookies are left in the warehouse?

Part 2 Match each multiplication property with the example that shows the property.

Zero Property	5 x 3 = 3 x 5
Identity (One) Property	8 x 15 = (8 x 10) + (8 x 5)
Commutative Property	75 x 0 = 0
Associative Property	10 x (4 x 7) = (10 x 4) x 7
Distributive Property	1 x 24 = 24

Part 3 Find the quotients.

$3\overline{)60}$ $5\overline{)32}$ $4\overline{)25}$

Part 4 Circle the numbers as directed.

Circle the multiples of 4.

8 13 16 28 20 18 26

Circle the factors of 36.

2 3 5 10 6 8 7

Circle the prime numbers.

1 9 4 3 7 15

Circle the composite numbers.

5 8 17 20 2 12

Part 5 Find the value of the variable in the following equations:

$12 + x = 23$ $x =$ _____ $b - 10 = 35$ $b =$ _____

$a \div 3 = 8$ $a =$ _____ $n \times 7 = 49$ $n =$ _____

Part 6 Circle the correct equation for each problem.

For a recycling project, Lance collected four times as many cans as Sean collected. Sean collected 15 cans. How many cans did Lance collect?

15 + 4 = n 15 ÷ 4 = n 4 x 15 = n

Martha earned $28 babysitting. Now she has $55. How much money did she start with?

b + 28 = 55 28 + 55 = b b - 55 = 28

Emily has enough M&Ms to give 6 friends 8 M&Ms each. How many M&Ms does she have?

8 + 6 = n 8 - 6 = n n ÷ 6 = 8

Part 7 Find the rule and fill in the missing numbers.

In	Out
1	3
2	
3	9
4	
5	15

Rule: _____