3rd Grade American Math HW 17

Chapter 10: Apply Multiplication and Division

Dear Family,

During the next few weeks, our math class will be learning more about multiplication. We will learn strategies for finding multiples, determining even or odd numbers, finding unknown numbers, and solving two-step multiplication and division problems.

Vocabulary

- **Expression:** A part of an equation that has numbers and operation signs but does not have an equal sign.
- **Divisible:** A number is divisible if the number is a counting number and can be evenly divided.

Examples:

- 16 is divisible by 2.
- 18 is divisible by 3.

- **Homework due date: Sunday, Feb. 1st (Upload Homework on Archie)**

- We will be using iPads to complete the work instead of the textbook. Please ensure that students bring an **Apple Pencil** (it does not have to be the original one) so they can write on their iPads. Chapter 10 can be found in GoodNotes, in the Classwork folder inside the Math folder. This way, students can always review and go back to what we did in class if needed.

- **Feel free to contact me with any questions at diana.charaf@archimedean.org**

Complete homework daily based on the schedule provided below:

Monday 01/26	Pages: **457 - 458**
Tuesday 01/27	Pages: **463 - 464**
Wednesday 01/28	Pages: **469 - 470**
Thursday 01/29	Pages: **475 - 481**
Friday 01/30	Pages: **493 - 494**

Name _____

Multiplication Comparisons

Go Online
Interactive Examples

Draw a bar model and write a multiplication expression to represent the comparison.

1. 4 times as many as 7

2. 5 times as many as 3

Describe the multiplication expression as a comparison.

3. 7×6

_____ times as many as _____

4. 3×8

_____ times as many as _____

5. 8×5

_____ times as many as _____

6. 9×12

_____ times as many as _____

Problem Solving Real World

Use information in the pictures for Problems 7–9.

7. The toy store has 4 times as many whistles as yo-yos. Write a multiplication expression to represent the number of whistles compared to yo-yos.

8. Write a comparison statement about the wind-up ducks that could be described using the expression 11×5.

9. The toy store has 8 times as many soccer balls as spinning tops. Write a multiplication expression to represent the number of soccer balls compared to spinning tops.

Lesson Check

Fill in the bubble completely to show your answer.

10. Ela sells 5 boxes of greeting cards. Sam sells 3 times as many boxes as Ela. Which expression represents the number of boxes that Sam sells compared to Ela?

Ⓐ $5 \times 5 \times 5$

Ⓑ $5 + 3$

Ⓒ $5 - 3$

Ⓓ 3×5

11. Kaitlin collects 6 bottle caps for a prize. Jin collects 4 times as many bottle caps as Kaitlin. Which expression represents the number of bottle caps that Jin collects compared to Kaitlin?

Ⓐ $6 + 4$

Ⓑ $6 \times 6 \times 6 \times 6$

Ⓒ 4×6

Ⓓ $4 \times 4 \times 4 \times 4 \times 4 \times 4$

12. Farrah has 18 crayons. John's crayons can be represented by 2×18. Which comparison statement describes the expression?

Ⓐ 18 more than 2

Ⓑ 2 times as many as 18

Ⓒ 2 more than 18

Ⓓ 2 fewer than 18

13. Justin writes the multiplication expression 3×9. Which comparison statement describes the expression that Justin wrote?

Ⓐ 3 more than 9

Ⓑ 9 more than 3

Ⓒ 3 times as many as 9

Ⓓ 3 fewer than 9

Spiral Review

14. Donte has 3 math books and 5 science books. Ramya has 4 more books than Donte. How many books does Ramya have?

Ⓐ 12

Ⓑ 8

Ⓒ 4

Ⓓ 2

15. A scientist collected data on rainfall for 48 months. For how many years did she collect the data?

Ⓐ 12

Ⓑ 4

Ⓒ 3

Ⓓ 2

Name _____

Identify, Create and Extend Patterns

Go Online
Interactive Examples

Describe a pattern for the table. Then complete the table.

1.

Pans	1	2	3	4	5
Muffins	6	12	18	24	30

Add 6 muffins for each pan.

Multiply the number of pans by 6.

2.

Wagons	2	3	4	5	6
Wheels	8	12	16		

3.

Flowers	14	21	28	35	42
Vases	2		4		6

4.

Spiders	1	2	3	4	5
Legs	8		24		40

Problem Solving Real World

5. Caleb buys 5 cartons of yogurt. Each carton has 8 yogurt cups. How many yogurt cups does Caleb buy?

6. Latoya bought 12 packages of pencils. Each package has 6 pencils. How many pencils did Latoya buy?

Lesson Check

8. What is the fifth term in the pattern?

Tables	1	2	3	4	5
Chairs	5	10	15	20	■

9. What number completes this table?

Butterflies	3	4	5	6	7
Wings	12	16	20	■	28

Spiral Review

10. Jennilee buys 7 packs of crayons. There are 6 crayons in each pack. How many crayons does Jennilee buy?

11. Maverick has 11 books of circus tickets. Each book has 5 tickets. How many tickets does Maverick have?

12. Bailey walked his dog 2 times each day for 9 days. How many times did Bailey walk his dog?

13. Drew's Tree Company delivers pear trees in groups of 4. Yesterday, the company delivered 8 groups of pear trees. How many pear trees were delivered?

Name _____

Determine Multiples

Go Online
Interactive Examples

1. Which of the following are multiples of 7? Select all that apply.

   14 27 36 49

2. Which of the following are multiples of 3? Select all that apply.

   15 24 29 33

3. MTR There are 2 cups in a pint. Which containers hold whole numbers of pints? Show or explain how you found your answer.

_____

_____

Find the first four multiples of the number. Write multiplication equations to show that they are multiples.

4. 12: _____

5. 9: _____

6. 1: _____

7. MTR Biscuits are sold in cans of 8. How many biscuits are in 1 to 5 cans?

_____

8. Find the first 3 multiples of 6. Write division equations to show that they are multiples.

_____

9. Karl says that 42 is a multiple of both 6 and 7. Is he correct? Explain.

_____

Lesson Check

Fill in the bubble completely to show your answer.

10. Which number is a multiple of 7?

Ⓐ 17 Ⓑ 24 Ⓒ 36 Ⓓ 49

11. Which number is not a multiple of 12?

Ⓐ 48 Ⓑ 96 Ⓒ 121 Ⓓ 144

12. Which of the following are multiples of 2?

Ⓐ 8 Ⓒ 29 Ⓔ 55
Ⓑ 14 Ⓓ 38

13. A toy robot requires 4 batteries. How many batteries are needed for 1 to 5 robots?

_____

Spiral Review

Find the sum.

14.
$$\begin{array}{r} 4{,}325 \\ +\ 1{,}984 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 2{,}907 \\ +\ 6{,}438 \\ \hline \end{array}$$

Find the difference.

16.
$$\begin{array}{r} 5{,}716 \\ -\ 3{,}940 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 7{,}004 \\ -\ 6{,}928 \\ \hline \end{array}$$

Name _____

Determine Even or Odd Using Divisibility Rules

Go Online
Interactive Examples

Tell if the product will be *odd* or *even*.

1. 3×41 _____

2. 56×9 _____

3. 64×8 _____

4. 3×50 _____

Circle the numbers divisible by 2.

5. 113 6. 572 7. 488 8. 326 9. 631 10. 234

Problem Solving Real World

11. Kenji writes the numbers 230 and 607. He says that both numbers are divisible by 2. Is Kenji correct? Explain.

12. Kara uses some buttons to decorate 6 puppets. She uses 8 buttons on each puppet. Will the number of buttons Kara uses be an even or an odd number? Explain.

13. Miguel has a group of 17 red counters and a group of 13 yellow counters. He arranges the counters into stacks of 5. Does he have an odd or even number of stacks? Explain.

Name _____

Find Unknown Numbers

Go Online
Interactive Examples

Find the unknown number.

1. $n \times 3 = 12$

Think: How many groups of 3 equal 12?

$n =$ 4

2. $s \times 8 = 64$

$s =$ _____

3. $77 = 7 \times n$

$n =$ _____

4. $y \times 2 = 18$

$y =$ _____

5. $5 \times p = 60$

$p =$ _____

6. $56 = 8 \times t$

$t =$ _____

7. $m \times 4 = 28$

$m =$ _____

8. ★ $\times 1 = 9$

★ = _____

9. $b \times 6 = 54$

$b =$ _____

10. $5 \times$ ▲ $= 40$

▲ = _____

11. $30 = d \times 3$

$d =$ _____

12. $7 \times k = 42$

$k =$ _____

Problem Solving Real World

13. Carmen spent $42 for 6 hats. How much did each hat cost?

_____

14. Mark has a baking tray with 24 muffins. The muffins are arranged in 4 equal rows. How many muffins are in each row?

_____

Name _____

Solve Two-Step Division Problems

Solve the problem.

1. Jack has 3 boxes of pencils with the same number of pencils in each box. His mother gives him 4 more pencils. Now Jack has 28 pencils. How many pencils are in each box?

   Think: I can start with 28 counters and act out the problem.

   _____

2. Li writes 9 poems and then 9 more. She gives 6 poems to each of her sisters and has none left. How many sisters does she have?

   _____

3. Ricardo has 2 cases of video games with the same number of games in each case. He gives 4 games to his brother. Ricardo has 10 games left. How many video games were in each case?

   _____

4. Haua has $50 to spend on gifts for her friends. Her mother gives her $5 more. If each gift costs $5, how many gifts can she buy?

   _____

5. Joe has a collection of 35 paintings. He received 8 of them as gifts. Joe bought the rest over 3 years. If he bought the same number of paintings each year, how many paintings did Joe buy last year?

   _____

Lesson Check

7. Gavin saved $16 to buy packs of baseball cards. His father gives him $4 more. If each pack of cards costs $5, how many packs can Gavin buy?

8. Chelsea buys 8 packs of markers. Each pack contains the same number of markers. Chelsea gives 10 markers to her brother. Then, she has 86 markers left. How many markers were in each pack?

Spiral Review

9. Each foot has 5 toes. How many toes do 6 feet have?

10. Each month for 5 months, Sophie makes 2 quilts. How many more quilts does she need to make to have 16 quilts?

11. Meredith practices the piano for 3 hours each week. How many hours will she practice in 8 weeks?

12. Find the unknown factor.

$9 \times \square = 36$