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Summer Edition

Third Grade Math

Activity 2

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This packet includes four sections that cover the major content for 3rd grade math. Each section includes pages of notes and practice for each topic. For additional support, visit KCS TV on YouTube for instructional videos that accompany each section.

The following content is included in this packet:

	Topic			
	I. Geometry	**II. Understanding the Relationship Between Multiplication and Division**	**III. Understanding Fractions**	**IV. Understanding Area**
Activity 1	Identify Shapes	Connecting Multiplication and Division	Describing Parts of a Whole with Fractions	Finding the Area of Rectangles
Activity 2	Describe Shapes Based on Their Attributes	Using a Multiplication Table	Understand Factions on a Number Line	Solving Problems Involving Area
Activity 3	Classifying Shapes Based on Their Attributes	Solving Word Problems Using Multiplication or Division	Understanding and Finding Equivalent Fractions	Solving Word Problems About Area

Objective: Understand properties of multiplication and the relationship between multiplication and division to multiply within 100 (up to 10 x 10). Ex., 2 x 4 = 8 is same as 4 x 2 = 8; related to 8 ÷ 2 = 4 and 8 ÷ 4 = 2

Multiplication joins equal groups to find a total, or product. Division starts with a total and breaks it up into equal groups. The result is called the **quotient**.

Multiplication

$3 \times 4 = 12$

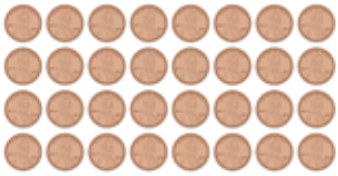
number of groups — number in each group — total

Division

$12 \div 3 = 4$

total — number of groups — number in each group

Juan arranges pennies in an array.



You can use multiplication to tell how many pennies there are in all.

$4 \times 8 = 32$ pennies or $8 \times 4 = 32$ pennies

You can use division to tell how many pennies are in each row and how many rows there are.

$32 \div 4 = 8$ pennies in each row or $32 \div 8 = 4$ rows of pennies

Notice that all of the equations use the same three numbers: 4, 8, and 32.

Example

Marta baked 15 muffins. She puts an equal number of muffins in 3 baskets.

She thinks, 3 times what number equals 15?

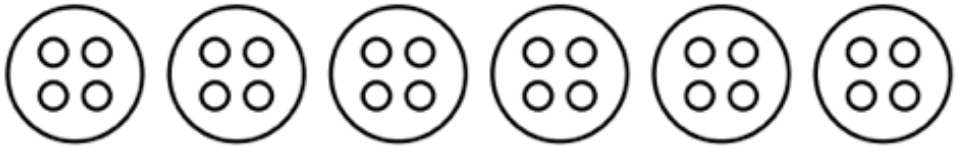
$3 \times ? = 15$

$3 \times \mathbf{5} = 15$

So, Marta puts 5 muffins in each basket.

Understanding of How Multiplication and Division Are Connected

Activity 1



1 There are 24 marbles. Each bag has 4 marbles.

Write an equation that shows the number of bags.

_____

2 There are 24 marbles. An equal number of marbles are in 6 bags.

Write an equation that shows the number of marbles in each bag.

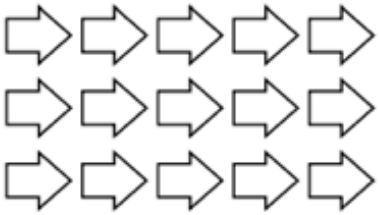
_____

3 There are 6 bags of marbles. 4 marbles are in each bag.

Write two different equations that show the total number of marbles.

_____ _____

4 Write 2 multiplication equations and 2 division equations for this array.



_____ _____

_____ _____

Find the value of ? to complete each fact.

5 $6 \times ? = 48$

$48 \div 6 = ?$

$? =$ _____

6 $? \times 5 = 45$

$45 \div ? = 5$

$? =$ _____

7 $63 \div 9 = ?$

$? \times 9 = 63$

$? =$ _____

8 $32 \div ? = 8$

$8 \times ? = 32$

$? =$ _____

Using a Multiplication Table

Activity 2

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Write the missing numbers in the boxes to make each multiplication or division problem true.

$5 \times 7 = \square$ $\quad$ $32 \div 8 = \square$ $\quad$ $4 \times 7 = \square$ $\quad$ $27 \div \square = 9$

$\square \div 5 = 7$ $\quad$ $8 \times \square = 32$ $\quad$ $\square \div 4 = 7$ $\quad$ $9 \times \square = 27$

$4 \times 4 = \square$ $\quad$ $9 \times 6 = \square$ $\quad$ $6 \times 6 = \square$ $\quad$ $81 \div \square = 9$

$\square \div 4 = 4$ $\quad$ $54 \div \square = 6$ $\quad$ $63 \div \square = 9$ $\quad$ $40 \div 8 = \square$

$\square \div 8 = 6$ $\quad$ $56 \div \square = 8$ $\quad$ $45 \div 5 = \square$ $\quad$ $\square \div 7 = 7$

1 Write 3 possible answers for the equation $36 \div \square = \square$.

Read and solve each problem. Show your work.

Activity 3

1 Heather has 18 photographs of rockets. She wants to hang them on 3 different walls in her room. Each wall will have the same number of photographs. How many photographs will hang on each wall?

There will be _____ photographs on each wall.

2 There are 24 people who want to play volleyball. The coach divides the players into teams of 6. How many teams can she make?

The coach can make _____ teams.

3 At an art show, there are 7 groups of paintings with 6 paintings in each group. How many paintings are there in all?

There are _____ paintings.

4 Jasmine reads for 10 minutes each night. If she reads for 5 nights, how many minutes will she read in all?

Jasmine will read for _____ minutes.

5 Rhonda plants 28 tomato plants in her garden. She plants 7 tomato plants in each row. How many rows does she plant?

Rhonda plants _____ rows.

6 Mr. Jones buys 6 packages of pencils. There are 8 pencils in each package. How many pencils does Mr. Jones buy?

Mr. Jones buys _____ pencils.

7 Choose one problem. Describe the strategy you used to solve it.

Answer Key for Topic 2- Understanding the Relationship Between Multiplication and Division

Activity 1 Answers

1. $24 \div 4 = 6$
2. $24 \div 6 = 4$
3. $4 \times 6 = 24$, $6 \times 4 = 24$
4. $3 \times 5 = 15$, $5 \times 3 = 15$, $15 \div 3 = 5$, $15 \div 5 = 3$
5. 8
6. 9
7. 7
8. 4

Activity 2 Answers

Row 1	35	4	28	3
Row 2	35	4	28	3
Row 3	16	54	36	9
Row 4	16	9	7	5
Row 5	48	7	9	49

Activity 3 Answers

1. 6
2. 4
3. 42
4. 50
5. 4
6. 48
7. Answers may vary.