LESSON MAKER PRO

Fact Model Mission

Use arrays, fact families, and smart strategies.

GRADE 3 · 3.CE.2

3.CE.2 "The student will recall with automaticity multiplication and division facts through 10 × 10; and represent, solve, and justify solutions to single-step contextual problems using multiplication and division with whole numbers..."

NAME _____ DATE _____

MODELS SHOW FACTS

An array has equal rows and equal columns. Multiply rows by columns to find the total. Divide the total by one factor to find the other factor.

WORKED EXAMPLE

Use the array to write the multiplication and division fact family.



1. There are 4 rows with 3 dots in each row.
2. 4 × 3 = 12.
3. Turn the multiplication fact into division facts.

Answer: 4 × 3 = 12; 3 × 4 = 12; 12 ÷ 4 = 3; 12 ÷ 3 = 4

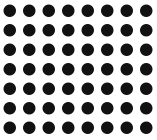
PRACTICE 6 problems

1 Use the array to write both multiplication equations.



ANSWER _____

2 How many dots are in the array? Write a multiplication equation.



ANSWER _____

3 Find 9 × 7. Use 10 × 7 and subtract one group of 7.

ANSWER _____

4 Solve: 56 ÷ 8 = ___

ANSWER _____

5 Complete the equation: 81 ÷ 9 = 1 × ___

ANSWER _____

6 Solve: 8 × 8 = ___

ANSWER _____

APPLY IT Show your work

1 A game store puts 6 trading cards in each prize pack. Maya buys 8 prize packs. How many trading cards does she buy? Write an equation and solve.

WORK SPACE

ANSWER _____

2 The school library has 72 new bookmarks. The librarian shares them equally among 9 reading tables. How many bookmarks does each table get? Write an equation and solve.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Use 9 × 9 to solve 10 × 9. Write an equation and explain your reasoning in two sentences.

WORK SPACE AND ANSWER

ANSWER KEY

Fact Model Mission

GRADE 3 · 3.CE.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the array to write both multiplication equations.	**2 × 5 = 10; 5 × 2 = 10**
2	How many dots are in the array? Write a multiplication equation.	**7 × 8 = 56**
3	Find 9 × 7. Use 10 × 7 and subtract one group of 7.	**63**
4	Solve: 56 ÷ 8 = ___	**7**
5	Complete the equation: 81 ÷ 9 = 1 × ___	**9**
6	Solve: 8 × 8 = ___	**64**

PART 2 · APPLY IT

1. **6 × 8 = 48 trading cards** Multiply the 6 cards in each pack by 8 packs: 6 × 8 = 48.
2. **72 ÷ 9 = 8 bookmarks** Divide 72 bookmarks into 9 equal groups: 72 ÷ 9 = 8.

CHALLENGE

10 × 9 = 90. Since 9 × 9 = 81, adding one more group of 9 gives 90.

Accept multiplication equations written in either factor order when the product is correct. For the challenge, accept any correct two-sentence explanation that uses 9 × 9 and one additional group of 9.