LESSON MAKER PRO

Fact Family Quest

Use multiplication to divide and division to find a missing factor.

GRADE 3 · 3.NOS.E.9.d

3.NOS.E.9.d "Use the inverse relationship between multiplication and division (e.g., think of 4 × ? = 28 to solve 28 ÷ 4 = ?) to multiply and divide."

NAME _____ DATE _____

THE BIG IDEA

Multiplication and division undo each other. To divide, think of a multiplication fact with a missing number. You can also divide to find a missing factor in a multiplication fact.

WORKED EXAMPLE

Solve 35 ÷ 5 = ____.

1. Think: 5 × ___ = 35.
2. Since 5 × 7 = 35, the missing number is 7.
3. So 35 ÷ 5 = 7.

Answer: 7

PRACTICE 6 problems

1 Solve 24 ÷ 4 = ___.

ANSWER _____

2 Write a multiplication fact to help you solve 18 ÷ 6 = ___.

ANSWER _____

3 Use division to find the missing number: 8 × ___ = 32.

ANSWER _____

4 Solve 54 ÷ 9 = ___.

ANSWER _____

5 Use division to find the missing number: ___ × 3 = 27.

ANSWER _____

6 Write a multiplication fact to help you solve 64 ÷ 8 = ___.

ANSWER _____

APPLY IT Show your work

1 Mia puts 48 trading cards equally into 8 envelopes. How many cards go in each envelope?

WORK SPACE

ANSWER _____

2 Each team at a game day needs 4 badges. There are 9 teams. How many badges do they need in all? Use a division fact to check your answer.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A game club puts 72 beads into bags of 8. How many bags do they fill? Explain with a multiplication fact, then write a different division fact using the same three numbers.

WORK SPACE AND ANSWER

ANSWER KEY # Fact Family Quest

GRADE 3 · 3.NOS.E.9.d

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Solve 24 ÷ 4 = ___.	**6**
2	Write a multiplication fact to help you solve 18 ÷ 6 = ___.	**6 × 3 = 18; 18 ÷ 6 = 3**
3	Use division to find the missing number: 8 × ___ = 32.	**4**
4	Solve 54 ÷ 9 = ___.	**6**
5	Use division to find the missing number: ___ × 3 = 27.	**9**
6	Write a multiplication fact to help you solve 64 ÷ 8 = ___.	**8 × 8 = 64; 64 ÷ 8 = 8**

PART 2 · APPLY IT

1. **6 cards** Since 8 × 6 = 48, divide 48 by 8 to get 6 cards per envelope.
2. **36 badges; 36 ÷ 4 = 9** Multiply 9 × 4 to get 36 badges. Divide 36 by 4 to check that the badges are enough for 9 teams.

CHALLENGE

They fill 9 bags because 8 × 9 = 72. The other division fact is 72 ÷ 9 = 8.

Accept factors in either order in multiplication facts. For the challenge, the explanation must connect 8 × 9 = 72 to 72 ÷ 8 = 9.