LESSON MAKER PRO

Factor Finder

Use multiplication to solve division.

GRADE 3 · 3.OA.B.6

3.OA.B.6 "Use the relationship between multiplication and division to represent division as an equation with an unknown factor."

NAME _____ DATE _____

THE BIG IDEA

Division and multiplication are connected. To solve a division problem, write a multiplication equation with a blank for the missing factor. Find the number that makes the equation true.

WORKED EXAMPLE

Solve 35 / 5 = ____.

1. Write a multiplication equation: 5 × ___ = 35.
2. Use a multiplication fact: 5 × 7 = 35.
3. Fill in the division equation: 35 / 5 = 7.

Answer: 7

PRACTICE 6 problems

1 Use the multiplication equation to solve 24 / 4: 4 × ___ = 24.

ANSWER _____

2 Use the multiplication equation to solve 18 / 9: ___ × 9 = 18.

ANSWER _____

3 Use the multiplication equation to solve 32 / 8: 8 × ___ = 32.

ANSWER _____

4 Use the multiplication equation to solve 27 / 3: ___ × 3 = 27.

ANSWER _____

5 Use the multiplication equation to solve 60 / 10: 10 × ___ = 60.

ANSWER _____

6 Use the multiplication equation to solve 48 / 6: ___ × 6 = 48.

ANSWER _____

APPLY IT Show your work

1 You put 36 stickers into 9 packs, with the same number in each pack. Write a multiplication equation with ___, then find how many stickers are in each pack.

WORK SPACE

ANSWER _____

2 At a game party, 20 cards are shared equally by 10 players. Write a multiplication equation with ___, then find how many cards each player gets.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A student puts 72 markers into 8 boxes, with the same number in each box. Another student says there are 8 markers in each box because 8 × 8 = 72. Write the correct multiplication equation with ___, find the number of markers in each box, and explain the mistake.

WORK SPACE AND ANSWER

ANSWER KEY

Factor Finder

GRADE 3 · 3.OA.B.6

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use the multiplication equation to solve 24 / 4: 4 × ___ = 24.	**6**
2	Use the multiplication equation to solve 18 / 9: ___ × 9 = 18.	**2**
3	Use the multiplication equation to solve 32 / 8: 8 × ___ = 32.	**4**
4	Use the multiplication equation to solve 27 / 3: ___ × 3 = 27.	**9**
5	Use the multiplication equation to solve 60 / 10: 10 × ___ = 60.	**6**
6	Use the multiplication equation to solve 48 / 6: ___ × 6 = 48.	**8**

PART 2 · APPLY IT

1. **9 × ___ = 36; 4 stickers in each pack.** There are 9 equal packs, so 9 × ___ = 36. Since 9 × 4 = 36, each pack has 4 stickers.
2. **10 × ___ = 20; 2 cards per player.** There are 10 players, so 10 × ___ = 20. Since 10 × 2 = 20, each player gets 2 cards.

CHALLENGE

8 × ___ = 72; 9 markers in each box. The claim is wrong because 8 × 8 = 64, not 72.

For the word problems and challenge, accept equations with the factors in either order. Students should use the missing-factor equation to support their answer.