

Factor Detective

Use multiplication facts to solve division problems.

GRADE 3 • NY-3.OA.6

NY-3.OA.6 "Understand division as an unknown-factor problem."

NAME _____

DATE _____

FIND THE MISSING FACTOR

A division problem can ask for a missing multiplication factor.
Think, "What number times the number of equal groups makes the total?"

WORKED EXAMPLE

$$48 \div 6 = \underline{\quad}$$

1. Write a related multiplication fact: $6 \times \underline{\quad} = 48$.
2. Think of a fact with 6 that makes 48.
3. $6 \times 8 = 48$.

Answer: 8

PRACTICE 6 problems

1 $\underline{\quad} \times 4 = 28$

ANSWER _____

2 $35 \div \underline{\quad} = 5$

ANSWER _____

3 $\underline{\quad} \times 3 = 27$

ANSWER _____

4 $28 \div 7 = \underline{\quad}$

ANSWER _____

5 $\underline{\quad} \times 11 = 44$

ANSWER _____

6 $21 \div 7 = \underline{\quad}$

ANSWER _____

APPLY IT Show your work

- 1** Jada has 35 stickers. She puts the same number of stickers on each of 5 notebook covers. How many stickers go on each cover?

WORK SPACE

ANSWER _____

- 2** A music club puts 27 song cards into 3 equal piles. How many song cards are in each pile?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A library display has 63 books in 9 equal rows. Another display has 7 equal rows with the same number of books in each row. How many books are on the second display? Explain your reasoning.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$___ \times 4 = 28$	7
2	$35 \div ___ = 5$	7
3	$___ \times 3 = 27$	9
4	$28 \div 7 = ___$	4
5	$___ \times 11 = 44$	4
6	$21 \div 7 = ___$	3

PART 2 • APPLY IT

1. **7 stickers** Write $35 \div 5 = ___$. Since $5 \times 7 = 35$, each cover gets 7 stickers.
2. **9 song cards** Write $27 \div 3 = ___$. Since $3 \times 9 = 27$, each pile has 9 song cards.

CHALLENGE

49 books. There are 7 books in each row because $9 \times 7 = 63$. Then $7 \times 7 = 49$.

Accept a correct related multiplication fact or division equation as reasoning. For the challenge, accept any clear explanation showing 7 books per row and a total of 49 books.