

Fact Family Detectives

Use multiplication and division to show connected facts.

GRADE 3 • TEKS 3.1.F

3.1.F "analyze mathematical relationships to connect and communicate mathematical ideas; and"

NAME _____

DATE _____

CONNECTED FACTS

A multiplication fact and a division fact can describe the same equal groups. If you know the total and one factor, divide to find the missing factor. Check your answer by multiplying.

WORKED EXAMPLE

Complete: $9 \times 9 = \underline{\quad}$, so $81 \div 9 = \underline{\quad}$.

1. Multiply: $9 \times 9 = 81$.
2. Use the same total, 81.
3. Divide: $81 \div 9 = 9$.

Answer: 81; 9

PRACTICE 6 problems

1 Complete: $7 \times 8 = 56$, so $56 \div 8 = \underline{\quad}$.

ANSWER _____

2 Complete: $6 \times 7 = 42$, so $\underline{\quad} \div 6 = 7$.

ANSWER _____

3 Complete both blanks: $8 \times 4 = \underline{\quad}$, and $\underline{\quad} \div 8 = 4$.

ANSWER _____

4 Complete both blanks: $48 \div 6 = \underline{\quad}$, and $6 \times \underline{\quad} = 48$.

ANSWER _____

5 Which division equation matches $7 \times 3 = 21$? A. $21 \div 7 = 3$ B. $21 \div 3 = 8$

ANSWER _____

6 $\underline{\quad} \div 4 = 8$. What number belongs in the blank? Check with multiplication.

ANSWER _____

APPLY IT Show your work

- 1** Maya has 42 trading cards. She shares them equally with 6 friends. How many cards does each friend get?

WORK SPACE

ANSWER _____

- 2** The craft club has 48 beads. They make 8 equal bracelets. How many beads go on each bracelet?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A club has 54 stickers. It gets 18 more stickers before sharing all the stickers equally among 6 tables. How many stickers does each table get? Explain how you know.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete: $7 \times 8 = 56$, so $56 \div 8 = \underline{\hspace{1cm}}$.	7
2	Complete: $6 \times 7 = 42$, so $\underline{\hspace{1cm}} \div 6 = 7$.	42
3	Complete both blanks: $8 \times 4 = \underline{\hspace{1cm}}$, and $\underline{\hspace{1cm}} \div 8 = 4$.	32; 32
4	Complete both blanks: $48 \div 6 = \underline{\hspace{1cm}}$, and $6 \times \underline{\hspace{1cm}} = 48$.	8; 8
5	Which division equation matches $7 \times 3 = 21$? A. $21 \div 7 = 3$ B. $21 \div 3 = 8$	A. $21 \div 7 = 3$
6	$\underline{\hspace{1cm}} \div 4 = 8$. What number belongs in the blank? Check with multiplication.	32

PART 2 • APPLY IT

1. **7 cards** Divide 42 by 6 to get 7. Check: $6 \times 7 = 42$.
2. **6 beads** Divide 48 by 8 to get 6. Check: $8 \times 6 = 48$.

CHALLENGE

12 stickers per table. $54 + 18 = 72$, and $72 \div 6 = 12$.

Accept correct number answers and equivalent multiplication or division checks. For the challenge, accept 12 if the student correctly adds 54 and 18, then divides 72 by 6.