

Fact Family Fun

Use multiplication and division to solve equal-group problems.

GRADE 3 • MA.3.NSO.2.2

MA.3.NSO.2.2 "Explore multiplication of two whole numbers with products from 0 to 144, and related division facts."

NAME _____

DATE _____

MULTIPLY AND DIVIDE

Multiplication tells how many are in equal groups. Division can undo multiplication to find how many are in each group or how many groups there are.

WORKED EXAMPLE

Find 12×11 .

1. Break 11 into $10 + 1$.
2. $12 \times 10 = 120$.
3. $12 \times 1 = 12$.
4. $120 + 12 = 132$.

Answer: 132

PRACTICE 6 problems

1 $6 \times 9 = \underline{\hspace{2cm}}$

ANSWER _____

2 $72 \div 8 = \underline{\hspace{2cm}}$

ANSWER _____

3 $7 \times 7 = \underline{\hspace{2cm}}$

ANSWER _____

4 $63 \div 7 = \underline{\hspace{2cm}}$

ANSWER _____

5 $10 \times 14 = \underline{\hspace{2cm}}$

ANSWER _____

6 $8 \times \underline{\hspace{2cm}} = 64$

ANSWER _____

APPLY IT Show your work

- 1** Nia buys 5 packs of trading cards. Each pack has 14 cards. How many trading cards does Nia buy?

WORK SPACE

ANSWER _____

- 2** A class has 100 puzzle pieces to share equally among 5 tables. How many puzzle pieces does each table get?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A music store has 144 stickers. It packs the stickers into 9 equal boxes, then repacks all the stickers into 16 equal boxes. How many stickers are in each box each time? Explain how multiplication checks both answers.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$6 \times 9 = \underline{\quad}$	54
2	$72 \div 8 = \underline{\quad}$	9
3	$7 \times 7 = \underline{\quad}$	49
4	$63 \div 7 = \underline{\quad}$	9
5	$10 \times 14 = \underline{\quad}$	140
6	$8 \times \underline{\quad} = 64$	8

PART 2 • APPLY IT

1. **70 trading cards** Multiply 5×14 to find the total number of cards. $5 \times 14 = 70$.
2. **20 puzzle pieces** Divide 100 by 5 to find how many pieces go on each table. $100 \div 5 = 20$.

CHALLENGE

With 9 boxes, there are 16 stickers in each box. With 16 boxes, there are 9 stickers in each box. Check: $9 \times 16 = 144$ and $16 \times 9 = 144$.

Accept correct equations, repeated addition, arrays, or equal-group reasoning. For the challenge, accept an explanation that uses both multiplication facts to check the division answers.