LESSON MAKER PRO

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."

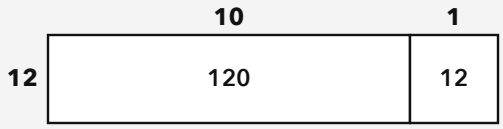
NAME _____ DATE _____

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. Split 11 columns into 10 and 1, with 12 rows.
2. 12 × 10 + 12 × 1 = 120 + 12 = 132.
3. The related division 132 ÷ 12 = 11 tells the number of columns.

Answer: 132

PRACTICE 6 problems

1 6 × 9 = ___

ANSWER _____

2 72 ÷ 8 = ___

ANSWER _____

3 7 × 7 = ___

ANSWER _____

4 63 ÷ 7 = ___

ANSWER _____

5 10 × 14 = ___

ANSWER _____

6 8 × ___ = 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 shares 100 puzzle pieces equally among 5 tables. Draw and label a model of the sharing. Write a division equation and a multiplication equation to check it.

WORK SPACE

ANSWER _____

CHALLENGE One step up

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.

WORK SPACE AND ANSWER

ANSWER KEY

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	6 × 9 = ___	**54**
2	72 ÷ 8 = ___	**9**
3	7 × 7 = ___	**49**
4	63 ÷ 7 = ___	**9**
5	10 × 14 = ___	**140**
6	8 × ___ = 64	**8**

PART 2 · APPLY IT

1. **70 trading cards** Multiply 5 × 14 to find the total number of cards. 5 × 14 = 70.
2. **20 pieces per table; 100 ÷ 5 = 20 and 5 × 20 = 100. A valid model shows 5 equal shares totaling 100.** Divide 100 by 5 to find how many pieces go on each table. 100 ÷ 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 × 16 = 144 and 16 × 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.