LESSON MAKER PRO

Factor Switch

Turn division into a missing factor equation.

GRADE 3 · MA.3.AR.2.1

MA.3.AR.2.1 "Restate a division problem as a missing factor problem using the relationship between multiplication and division."

NAME _____ DATE _____

THE BIG IDEA

Division and multiplication are connected. To restate a division problem, put the divisor first in a multiplication equation, then use a blank for the missing factor. The product is the dividend.

WORKED EXAMPLE

42 / 7 = ____

1. Start with 42 / 7 = ___.
2. Write 7 × ___ = 42.
3. Find the factor that makes 42 when multiplied by 7.

Answer: 42 / 7 = 6 because 7 × 6 = 42.

PRACTICE 6 problems

1 20 / 4 = ___. Write the matching missing factor equation.

ANSWER _____

2 27 / 3 = ___. Write the matching missing factor equation.

ANSWER _____

3 32 / 4 = ___. Write the matching missing factor equation.

ANSWER _____

4 45 / 5 = ___. Write the matching missing factor equation.

ANSWER _____

5 64 / 8 = ___. Write the matching missing factor equation.

ANSWER _____

6 81 / 9 = ___. Write the matching missing factor equation.

ANSWER _____

APPLY IT Show your work

1 A costume maker shares 45 beads equally among 5 bracelets. How many beads go on each bracelet? Write a division equation and restate it as a missing factor equation.

WORK SPACE

ANSWER _____

2 A game team puts 40 prize tickets equally into 8 envelopes. How many tickets go in each envelope? Write a division equation and restate it as a missing factor equation.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A craft club has 72 beads and puts them equally on 8 bracelets. Then the club uses 4 beads from each bracelet for a display. Write the division equation and the matching missing factor equation. How many beads remain on each bracelet?

WORK SPACE AND ANSWER

ANSWER KEY

Factor Switch

GRADE 3 · MA.3.AR.2.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	20 / 4 = ___. Write the matching missing factor equation.	**4 × ___ = 20; ___ = 5**
2	27 / 3 = ___. Write the matching missing factor equation.	**3 × ___ = 27; ___ = 9**
3	32 / 4 = ___. Write the matching missing factor equation.	**4 × ___ = 32; ___ = 8**
4	45 / 5 = ___. Write the matching missing factor equation.	**5 × ___ = 45; ___ = 9**
5	64 / 8 = ___. Write the matching missing factor equation.	**8 × ___ = 64; ___ = 8**
6	81 / 9 = ___. Write the matching missing factor equation.	**9 × ___ = 81; ___ = 9**

PART 2 · APPLY IT

1. **45 / 5 = 9; 5 × ___ = 45; 9 beads go on each bracelet.** Divide 45 beads into 5 equal groups. The matching multiplication equation is 5 × ___ = 45, so the missing factor is 9.
2. **40 / 8 = 5; 8 × ___ = 40; 5 tickets go in each envelope.** Divide 40 tickets into 8 equal groups. The matching multiplication equation is 8 × ___ = 40, so the missing factor is 5.

CHALLENGE

72 / 8 = 9; 8 × ___ = 72; 9 beads start on each bracelet, and 5 beads remain on each bracelet.

Accept equivalent multiplication equations only when the divisor is a factor and the dividend is the product, such as 4 × ___ = 20. Students may write the solved factor in the blank or state it after the equation.