LESSON MAKER PRO

Find the Missing Number

Make number sentences true

GRADE 4 · 4.A.2.3

4.A.2.3 "Determine the unknown addend or factor in equivalent and non-equivalent expressions (e.g., 5 + 6 = 4 + □, 3 · 8 < 3 · □)."

NAME _____ DATE _____

THE BIG IDEA

An equal sign means both sides have the same value. To find a missing addend, subtract; to find a missing factor, divide. For < or >, check which whole numbers make the comparison true.

WORKED EXAMPLE

9 * 7 = 3 * ____. Find the missing factor.

1. Find the value of the left side: 9 * 7 = 63.
2. Divide by the factor next to the blank: 63 / 3 = 21.
3. Check: 3 * 21 = 63.

Answer: 21

PRACTICE 6 problems

1 8 + 6 = 10 + ___. Find the missing addend.

ANSWER _____

2 4 * 8 = 2 * ___. Find the missing factor.

ANSWER _____

3 5 * 6 = ___ + 12. Find the missing addend.

ANSWER _____

4 6 * 5 < 6 * ___. What is the least whole number that makes this true?

ANSWER _____

5 4 * ___ < 4 * 6. What is the greatest whole number that makes this true?

ANSWER _____

6 20 + ___ > 25 + 5. What is the least whole number that makes this true?

ANSWER _____

APPLY IT Show your work

1 In a game, Nia earns 8 coins per level for 5 levels. Ravi starts with 16 coins and earns 6 coins per level. How many levels must Ravi finish to have the same number of coins as Nia?

WORK SPACE

ANSWER _____

2 At an arcade, Ella earns 8 tickets per game for 12 games. Ben earns 8 tickets per game. What is the greatest whole number of games Ben can play and still earn fewer tickets than Ella?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Complete 4 * ___ = 20 + ___. The number in the first blank is 2 more than the number in the second blank. Explain how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Find the Missing Number

GRADE 4 · 4.A.2.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	8 + 6 = 10 + ___. Find the missing addend.	**4**
2	4 * 8 = 2 * ___. Find the missing factor.	**16**
3	5 * 6 = ___ + 12. Find the missing addend.	**18**
4	6 * 5 < 6 * ___. What is the least whole number that makes this true?	**6**
5	4 * ___ < 4 * 6. What is the greatest whole number that makes this true?	**5**
6	20 + ___ > 25 + 5. What is the least whole number that makes this true?	**11**

PART 2 · APPLY IT

1. **4 levels** Nia earns 8 * 5 = 40 coins. Ravi needs 40 - 16 = 24 more coins, so he must finish 24 / 6 = 4 levels.
2. **11 games** Ella earns 8 * 12 = 96 tickets. Ben earns 8 * 11 = 88 tickets, which is fewer; at 12 games, he would have the same number.

CHALLENGE

First blank: 6. Second blank: 4. Both sides equal 24, and 6 is 2 more than 4.

For the inequality problems, accept only the requested least or greatest whole number. For the challenge, accept any explanation that checks both the equality and the difference between the blanks.