

Lesson 8-3 • Apply Day

# Reinforce Understanding

## Division Equations

I can solve one-step multiplication and division equations using inverse operations.

### Worked model

A club splits a box of  $n$  pens evenly among 6 members. Each member gets 13 pens. Solve  $n \div 6 = 13$ .

1. The variable  $n$  is divided by 6, so the inverse operation is multiplication.
2. Multiply BOTH sides by 6 so the equation stays balanced.
3. Left side:  $n \div 6 \times 6$  leaves  $n$ . Right side:  $13 \times 6$  gives 78.
4. Check:  $78 \div 6$  gives 13, so the value makes both sides equal.

**Answer:  $n = 78$ , so the box held 78 pens.**

### Practice

Complete each exercise. Show the reasoning that supports your answer.

**1. (Lesson 8.1) Write an equation: a number  $x$  plus 2 equals 4.**

Complete each step, then write the final answer.

Algebraic Balance Model

1. Use  $x$  for the unknown: \_\_\_\_.
2. “plus 2” becomes \_\_\_\_.
3. Write the equation: \_\_\_\_.

Answer: \_\_\_\_\_

**2. (Lesson 8.1) Write an equation: a number  $x$  plus 3 equals 6.**

Complete each step, then write the final answer.

Algebraic Balance Model

1. Use  $x$  for the unknown: \_\_\_\_.
2. “plus 3” becomes \_\_\_\_.
3. Write the equation: \_\_\_\_.

Answer: \_\_\_\_\_

**3. (Lesson 8.1) Write an equation: a number  $x$  plus 4 equals 8.**

Complete each step, then write the final answer.

Algebraic Balance Model

1. Use  $x$  for the unknown: \_\_\_\_.
2. “plus 4” becomes \_\_\_\_.
3. Write the equation: \_\_\_\_.

Answer: \_\_\_\_\_