

Lesson 8-2 • Apply Day

Reinforce Understanding

Subtraction Equations

I can solve one-step addition and subtraction equations using inverse operations.

Worked model

Sam gave away 18 marbles and had 27 left. Solve $m - 18 = 27$ for the marbles he started with.

1. The variable side shows 18 subtracted from m , so the inverse move is addition.
2. Add 18 to BOTH sides so the equation stays balanced.
3. Left side: $m - 18 + 18$ leaves m . Right side: $27 + 18$ gives 45.
4. Check: $45 - 18$ gives 27, so the value makes both sides equal.

Answer: $m = 45$, so Sam started with 45 marbles.

Practice

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

1. Solve the new equation $x + 2 = 5$.

Complete each step, then write the final answer.

Algebraic Balance Model

1. Subtract 2 from both sides: $5 - 2 = \underline{\hspace{1cm}}$.
2. Check by substituting x : $\underline{\hspace{1cm}}$.

Answer: $\underline{\hspace{2cm}}$

2. Solve the new equation $x + 3 = 7$.

Complete each step, then write the final answer.

Algebraic Balance Model

1. Subtract 3 from both sides: $7 - 3 = \underline{\hspace{1cm}}$.
2. Check by substituting x : $\underline{\hspace{1cm}}$.

Answer: $\underline{\hspace{2cm}}$

3. Solve the new equation $x + 4 = 9$.

Complete each step, then write the final answer.

Algebraic Balance Model

1. Subtract 4 from both sides: $9 - 4 = \underline{\hspace{1cm}}$.
2. Check by substituting x : $\underline{\hspace{1cm}}$.

Answer: $\underline{\hspace{2cm}}$