

Lesson 8-2 • Group 2

Reinforce Understanding

8.2 Small Group • Group 2

I can solve one-step addition and subtraction equations using inverse operations, explain why the method works, and use it on a problem I have not seen before.

Worked model

A shop had x hats. After 17 hats were delivered, the shop had 45 hats. Solve $x + 17 = 45$.

1. Look at the variable side: 17 is added to x , so the inverse move is subtraction.
2. Subtract 17 from BOTH sides so the equation stays balanced.
3. Left side: $x + 17 - 17$ leaves x . Right side: $45 - 17$ gives 28.
4. Check by substituting: $28 + 17$ makes 45, so both sides agree.

Answer: $x = 28$, so the shop had 28 hats before the delivery.

Practice

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

1. Solve: $m - 14 = 32$

Decide whether each pair balances. Check Yes or No, then explain.

	Left side		Right side	Balanced?
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Explain your choice

2. Complete the table: identify the inverse operation, solve, and check.

Complete the table. Show how you found each value.

Equation	Inverse Operation	Solution	Check
$x + 18 = 45$			
$p - 22 = 19$			
$w + 3.5 = 10$			

Show your work

3. Unlock Card 1: Solve $x + 7 = 15$.

Circle the letter of the best answer. Show how you know.

- A. $x = 7$
- B. $x = 8$
- C. $x = 22$
- D. $x = 105$

Show your work
