Write and Solve Subtraction Equations

TOPIC 4 / MATHEMATICS

Write. Represent. Explain.

45-minute lesson • Original classroom examples

What will we learn today?

- Represent a difference and solve for the starting amount.
- Use an equation, inequality, table, or diagram to justify your reasoning.
- Explain your answer using mathematical vocabulary and units.

5-minute warm-up

Discuss with a partner: What previous algebra or number skill will help with today’s lesson?

Show one calculation or example in your notebook.

Why this lesson matters

After spending $17.50, a card has $29.00 left. What was the starting amount?

What is known? What is unknown? Which quantities are related?

Represent the relationship

After spending $17.50, a card has $29.00 left. What was the starting amount?

$$s - 17.5 = 29$$

Explain the meaning of the variable, numbers, and operations.

Worked example

Define s as the starting balance; solve s − 17.5 = 29.

$$s = 29 + 17.5 = 46.5$$

Check: Does the result match the original relationship?

Independent practice

1. Write and solve: A store sells 25 plants and 37 remain.

2. Solve $r - 14.8 = 31.2$.

Check your reasoning

Question 1

$$p - 25 = 37 \Rightarrow p = 62$$

Question 2

$$r = 46$$

Group challenge

Find the missing starting value when a 9.5-liter tank loses 2.75 liters and ends at 6.75.

Each group member must explain one step or defend one claim.

Group challenge • solution

$$9.5 - 2.75 = 6.75$$

Compare methods. Does the answer make sense in context?

Additional Practice — If Time Allows

Solve $r - 14.8 = 31.2$.

Extension: Create a similar problem with different numbers.

2-minute exit ticket

Solve $x - 9.25 = 10.75$.

Work independently. Show enough steps to explain your thinking.

Exit ticket • answer

$$x = 20$$

Reflect: What would you check before moving to the next lesson?