Subtract Expressions with Several Terms

TOPIC 4 / MATHEMATICS

Write. Represent. Explain.

45-minute lesson • Original classroom examples

What will we learn today?

- Apply a negative sign to every term in a group.
- 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

Two teams have expressions for points in a multi-event competition.

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

Represent the relationship

Two teams have expressions for points in a multi-event competition.

$$(5a - 2b + 1) - (2a + 3b - 4) = 3a - 5b + 5$$

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

Worked example

Simplify (5a − 2b + 1) − (2a + 3b − 4).

$$3a - 5b + 5$$

Check: Does the result match the original relationship?

Independent practice

1. Simplify $(3x + 2y) - (-x + 5y)$.

2. Simplify $(4p - 8) - (-2p - 3)$.

Check your reasoning

Question 1

$$4x - 3y$$

Question 2

$$6p - 5$$

Group challenge

Correct $(4x + 1) - (2x - 3) = 2x - 2$.

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

Group challenge • solution

$$(4x + 1) - (2x - 3) = 2x + 4$$

Compare methods. Does the answer make sense in context?

Additional Practice — If Time Allows

Simplify $(4p - 8) - (-2p - 3)$.

Extension: Create a similar problem with different numbers.

2-minute exit ticket

Simplify $(8a + 2b) - (5a - 4b)$.

Work independently. Show enough steps to explain your thinking.

Exit ticket • answer

$$3a + 6b$$

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