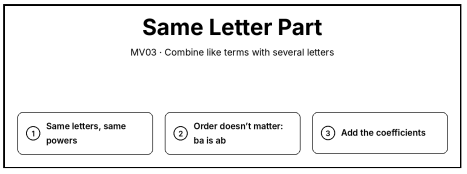
Same Letter Part: teacher script

MV03-V1 · MV03 Combine like terms with several letters · teachers only. Without a screen, read each Say line and draw each Draw step on the board. About 71 seconds as a video.

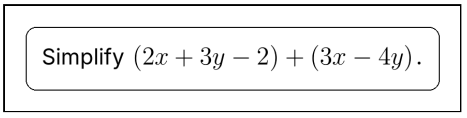
01



Say. Same letter part. Like terms have the same letters with the same powers. The order of the letters doesn't matter: b a is a b. Then add the coefficients.

Draw. Write the title “Same Letter Part” and the steps: 1. Same letters, same powers; 2. Order doesn’t matter: ba is ab; 3. Add the coefficients.

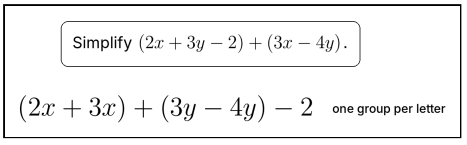
02



Say. Simplify (2x + 3y − 2) + (3x − 4y).

Draw. Clear the board. Write “Simplify (2x + 3y − 2) + (3x − 4y).” in a box at the top.

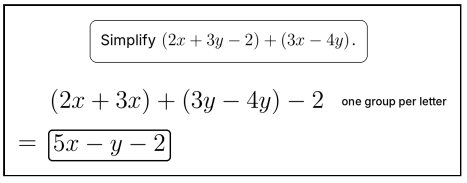
03



Say. Group the x terms and the y terms, each with its sign.

Draw. Write (2x + 3x) + (3y − 4y) − 2 on the next line. Beside it, write “one group per letter”.

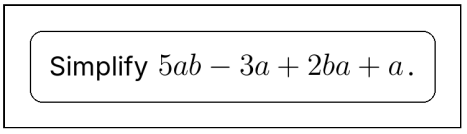
04



Say. Two plus three is five, and three minus four is negative one: 5x − y − 2.

Draw. Write = 5x − y − 2 and box it on the next line.

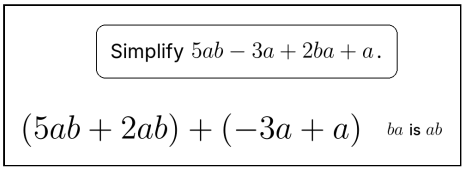
05



Say. Now simplify 5ab − 3a + 2ba + a.

Draw. Clear the board. Write “Simplify 5ab − 3a + 2ba + a.” in a box at the top.

06



Say. ba is the same as ab, so those two are like terms. The a terms go together.

Draw. Write (5ab + 2ab) + (−3a + a) on the next line. Beside it, write “ba is ab”.

07

Simplify $5ab - 3a + 2ba + a$.

$(5ab + 2ab) + (-3a + a)$ ba is ab

$= \boxed{7ab - 2a}$

Say. Seven ab, and negative three plus one is negative two: 7ab − 2a.

Draw. Write = 7ab − 2a and box it on the next line.

08

Trap $-4c^2d + 2cd$

$\times$ $-2c^2d$

✓ $-4c^2d + 2cd$ already finished

Say. Watch for the trap: combining different powers. c²d and cd are not like terms, so the expression stays as it is.

Draw. Clear the board. Write “Trap” and −4c²d + 2cd. Below, write −2c²d and cross it out ×. Then write −4c²d + 2cd with a tick ✓.

09

Trap $5ab + 2ba$

$\times$ $5ab + 2ba$ equal, but not finished

✓ $7ab$

Say. And treating ab and ba as different leaves work undone: they combine to 7ab.

Draw. Clear the board. Write “Trap” and 5ab + 2ba. Below, write 5ab + 2ba and cross it out ×. Then write 7ab with a tick ✓.

10

Your turn

Check the whole letter part, then add the coefficients

Say. Now it is your turn. Check the whole letter part, then add the coefficients.

Draw. Point to today’s activity: Check the whole letter part, then add the coefficients