Same Letter Part

MV03-V1 · storyboard · MV03 Combine like terms with several letters. Read each picture with its sentences.

Picture 1

Simplify $(2x + 3y - 2) + (3x - 4y)$.

$$(2x + 3x) + (3y - 4y) - 2$$ one group per letter

$$= \boxed{5x - y - 2}$$

1. Simplify (2x + 3y − 2) + (3x − 4y).
2. Group the x terms and the y terms, each with its sign.
3. Two plus three is five, and three minus four is negative one: 5x − y − 2.

Picture 2

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

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

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

4. Now simplify 5ab − 3a + 2ba + a.
5. ba is the same as ab, so those two are like terms.
6. The a terms go together.
7. Seven ab, and negative three plus one is negative two: 7ab − 2a.

Picture 3

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

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

✓ $-4c^2d + 2cd$ already finished

8. Watch for the trap: combining different powers.
9. c^2d and cd are not like terms, so the expression stays as it is.

Picture 4

Trap $5ab + 2ba$

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

✓ $7ab$

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