Polynomials: collect terms and remove brackets

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Worked example 1

Simplify by collecting the x terms and the constant terms separately.

$$3x + 2 - x + 5$$

Guided attempt 2

Remove the brackets and simplify. Show how each enclosed sign changes.

$$5a - (2a - 3)$$

1. −(2a − 3) = _____ a + _____.
2. 5a − 2a + 3 = _____ a + _____.

Prerequisite 3

Combine the like terms.

$$2x + 5x$$

Prerequisite 4

Can y + y^2 be combined into one monomial? Write an equivalent expression and explain.

$$y + y^2$$

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Independent practice 5

Simplify.

$$-4x + 7x - 2$$

Independent practice 6

Simplify, keeping the squared and linear terms in separate groups.

$$2a^2 + 3a - 5a^2 + a$$

Independent practice 7

Remove brackets and simplify.

$$4x - (x + 6)$$

Independent practice 8

Apply the distributive law, then simplify.

$$2(3y - 1) - 4y$$

Exit question 9

Simplify and explain the sign of the final constant.

$$-(2x - 5) + 3x$$

Exit question 10

Simplify first, then evaluate at $a = -2$.

$$5a - 2(2a - 3)$$