Name _____ Class _____ Date _____

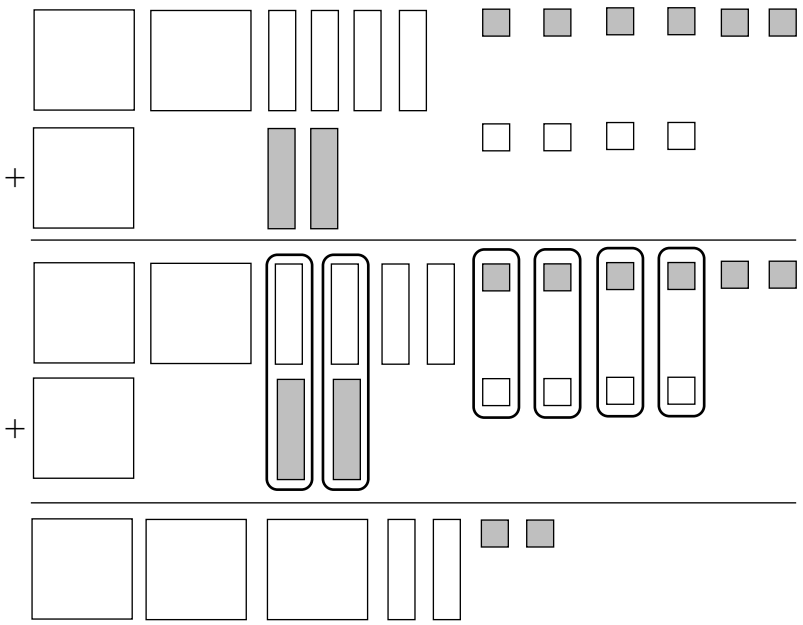
Reteaching 8-1

Adding and Subtracting Polynomials

OBJECTIVE: Adding and subtracting polynomials **MATERIALS:** Models

Example

Using models, simplify $(2a^2 + 4a - 6) + (a^2 - 2a + 4)$.



Use rectangles and squares to represent the terms of $2a^2 + 4a - 6$.

Use rectangles and squares to represent the terms of $a^2 - 2a + 4$. Align like terms vertically with the tiles in the row above.

Remove zero pairs.

Count the remaining rectangles and squares.

$3a^2 + 2a - 2$ **Solution**

Exercises

Use models to simplify each sum or difference.

1. $(4x - 5y + 3) + (2x + 7y - 7)$

2. $(3a^2 + 5a - 6) - (2a^2 - 3a - 9)$

3. $(6x^2 - 3x + 2) + (3x^2 + x - 5)$

4. $(4x^2 + 2x - 7) - (-3x^2 - 6x + 2)$

5. $(6z^3 - 5z^2 + 1) + (8z^3 + 7z^2 - 4)$

6. $(4x^2 + 2) - (-2x^2 + 5) + (x^2 + 4)$

Simplify. Write each answer in standard form.

7. $(2x^2 - 3x + 4) + (3x^2 + 2x - 3)$

8. $(7x^3 - 3x + 1) - (x^3 + x^2 - 2)$

9. $(3y^2 - 3y + 2) + (4y^2 + 3y - 1)$

10. $(5x^2 - 10) - (3x^2 + 7)$

11. $(2x^3 + x^2 + 1) + (3x^3 - x^2 + 2)$

12. $(4x^3 + 3x + 2) - (2x^2 - 3x + 7)$

13. $(3x^2 + 7x - 6) + (x^3 + x^2 - x - 1)$

14. $(4x^2 - x + 6) - (3x^2 - 4)$

© Pearson Education, Inc., publishing as Pearson Prentice Hall. All rights reserved.