Name _____ Class _____ Date _____

Reteaching 2-2

Solving Multi-Step Equations

OBJECTIVE: Combine like terms **MATERIALS:** None

Example

Simplify $3a - 6x + 4 - 2a + 5x$ by combining like terms.

Ring each term that has the variable a. Draw a rectangle around each term that has the variable x, and a triangle around each constant term.

$3a$ $\boxed{-6x}$ $+4$ $-2a$ $\boxed{+5x}$

Group the like terms by reordering the terms so that all matching shapes are together.

$3a$ $-2a$ $\boxed{-6x}$ $\boxed{+5x}$ $+4$

Combine like terms by adding coefficients.

$a - x + 4$

Exercises

Draw circles, rectangles, and triangles to help you combine like terms and simplify each expression.

1. $3a + 5 - x + 7x - 2a$

2. $2x - 5 + 3a - 5x + 10a$

3. $7b - b - x + 5 - 2x - 7b$

4. $-6m + 3t + 4 - 4m - 2t$

5. $2r + 3s - 5r$

6. $4 - p - 2x + 3p - 7x$

7. $3k - 2x + 6k + 5$

8. $3 + 2a - 7x + 2.5 + 5x$

9. $4a + 3 - 2y - 5a - 7 + 4y$

10. $c - 3 + 2x - 6c + 4x$

Simplify each expression.

11. $2b + 2 - x + 4$

12. $-5 - c - 4 + 3c$

13. $\frac{1}{2}a - 5 - \frac{1}{2}a$

14. $1.5y - 1.5 + 0.5y + 0.5z + 1$

15. $6a + 3b - 2a + 4$

16. $\frac{2}{3}a + 5 - \frac{1}{3}a - 7$

17. $-8 + x - 2 + 3x$

18. $x + y - z + 4x - 5y + 2z$

19. $\frac{7}{8}x + 5 - \frac{3}{8}x - 4$

20. $10y - 3x + 5 - 8 - 2y$

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