Algebra 1   **Name:**
Date:

3.5 Solving with Combining Like Terms and Distributing Bell Work

Simplify using the Distributive Property.

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

3. $-6(x - 7)$ 4. $3(3x - 8)$

5. $\frac{1}{3}(15x - 21)$ 6. $\frac{1}{2}(6x + 22)$

Distribute and Combine.

7. $10(3x - 5) - 2x$ 8. $-4(x + 5) - 12x$

3.5 Solving with Combining Like Terms and Distributing Notes

- **In order to solve for the variable (letter), combine the like terms first.**
- **Add or Subtract**
- **Multiply or Divide**

Solve for x.

1.

$3x + 4x + 1 = 36$	Given Problem
	Combine Like Terms
	Add/Subtract
	Multiply/Divide
	Answer

2.

$12x - 3x -15 = 48$	Given Problem
	Combine Like Terms
	Add/Subtract
	Multiply/Divide
	Answer

3.

$x + 9 - 2x = 6$	Given Problem
	Combine Like Terms
	Add/Subtract
	Multiply/Divide
	Answer

4.

$4x + 20 - 3 - 6x = -13$	Given Problem
	Combine Like Terms
	Add/Subtract
	Multiply/Divide
	Answer

3.5 Solving with Combining Like Terms and Distributing Notes

Steps to Solving Equations:

1. Distribute
2. Combine
3. Move the variable to one side
4. Add or Subtract
5. Multiply or Divide

5. $4(2x + 5) = 24$

	Distribute
	Add/Subtract
	Mult/Divide
	Answer

6. $\frac{1}{2}(16k - 2) = -48$

	Distribute
	Add/Subtract
	Mult/Divide
	Answer

7. $11(3 - 6y) + 6(10y + 1) = 9$

	Distribute
	Combine
	Add/Subtract
	Mult/Divide
	Answer

8. $16x - (6x - 7) = 67$

	Distribute
	Combine
	Add/Subtract
	Mult/Divide
	Answer

2.4 **Activity: Rally Coach**
- In Groups of 2, assign a partner A and partner B.
- Partner A will do problem #9 out loud.
- Partner B will praise and coach.
- Partner B will do problem #10 out loud.
- Partner A will praise and coach.
- Continue process until completed.

9. $5(2x - 5) - 7x = 25$ 10. $8(-4x - 2) + 10 = -42$

11) $-4(5 + 6m) + 14 = -90$ 12) $20 - 5(4v - 1) = -60$

13) $12(t + 2) + 6t = 6$ 14) $9w - 3(2w + 8) = 16$

Assignment:

Closure: In complete sentences or table form, explain how to solve for x: $5(2x - 6) = 10$

Algebra 1
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3.5 Solving with Combining Like Terms and Distributing Assignment

Solve the following equations. **Show the WORK CORRECTLY**

1. $2x - 8 + 8 - 3x = -8$	Given Problem
	Combine Like Terms
	Add or Subtract
	Multiply or Divide
	Answer

2. $5x - 15 + 2x = 27$	Given Problem
	Combine Like Terms
	Add or Subtract
	Multiply or Divide
	Answer

3. $22 = 4(y - 5) + 2y$	
	Distribute
	Combine
	Add or Subtract
	Mult or Divide
	Answer

4. $3(8n - 1) + 8(n + 4) = -40$	
	Distribute
	Combine
	Add or Subtract
	Mult or Divide
	Answer

5. $3(x + 4) = 33$

6. $53 = 2(2x + 1) + 7$

7. $24 = 3(2a - 2)$

8. $50 = 3(x + 2) + x$

9. $4 = 3a - 14$

11. $8 - 5w = -37$

12. $\dfrac{n}{3} - 8 = -2$

13. $5 + \dfrac{x}{4} = 1$

14. $\dfrac{3}{4}q - 7 = 8$

15. $\dfrac{2}{3}g + 6 = -12$

16. $5c + 40 = 75$

17. $17 = y - 20$

18. Combine Like Terms:

    a. $8x + 11x$ _____

    b. $-3y - 6y$ _____

    c. $-3x + 12x$ _____

    d. $5y + 4x + 2y + 7x$ _____

    e. $12 - 2z - 5z - 1$ _____

    f. $6x - 5y + 6x + 5y$ _____

    g. $3a - 5.7a$ _____

8. Evaluate:

a. $7y + 2x - 2y + 3x$ with x= -2, $y = 4$

b. $3c - 4(5c + 1)$ for $c = -2$