

Variables on both sides

Name: _____ Date: _____

Solve. Collect the variable terms on one side first.

1. $-n - 14 = -3n + 4$

$n =$ _____

2. $7t + 14 = 2t + 49$

$t =$ _____

3. $7m + 12 = -m - 60$

$m =$ _____

4. $2x + 14 = 5x + 14$

$x =$ _____

5. $4m + 2 = 7m + 17$

$m =$ _____

6. $-4y + 1 = -5y + 7$

$y =$ _____

7. $7y + 13 = 8y + 18$

$y =$ _____

8. $4m + 10 = 7m + 7$

$m =$ _____

9. $5m = 7m + 6$

$m =$ _____

10. $6y + 11 = 7y + 5$

$y =$ _____

11. $8t + 6 = 5t + 21$

$t =$ _____

12. $n - 7 = -4n + 38$

$n =$ _____

Distributive property

Name: _____ Date: _____

Solve. Distribute first, then collect like terms.

1. $-2(m + 7) = 9m - 91$

$m =$ _____

2. $-2(m - 3) = -7m + 31$

$m =$ _____

3. $5(y - 9) = -6y - 89$

$y =$ _____

4. $3(x - 8) = -6x - 42$

$x =$ _____

5. $-4(k - 1) = -8k - 8$

$k =$ _____

6. $5(m - 8) - 10 = -95$

$m =$ _____

7. $4(n - 9) - 13 = -81$

$n =$ _____

8. $-6(x - 9) + 11 = 59$

$x =$ _____

9. $5(n - 4) = 3n - 8$

$n =$ _____

10. $-6(k - 2) = -9k - 6$

$k =$ _____

11. $3(y - 6) - 15 = -36$

$y =$ _____

12. $-6(t - 1) = -5t + 4$

$t =$ _____

Combining like terms

Name: _____ Date: _____

Solve. Combine like terms first.

1. $-2m + 6 - 7m = 6$

$m =$ _____

2. $-9x + 10 + 5x = 34$

$x =$ _____

3. $9k + 1 + 3k = 1$

$k =$ _____

4. $-8t - 14 - t = 40$

$t =$ _____

5. $-4n - 1 - 6n = -101$

$n =$ _____

6. $5t - 7 - 7t = 9$

$t =$ _____

7. $7y - 11 - 9y = 7$

$y =$ _____

8. $-7t - 12 - 2t = 51$

$t =$ _____

9. $-4x - 12 - 2x = 12$

$x =$ _____

10. $7x - 1 + 5x = -13$

$x =$ _____

11. $4t + 1 + 4t = -79$

$t =$ _____

12. $9k + 14 - 4k = -21$

$k =$ _____

Number of solutions

Name: _____ Date: _____

Solve. Write the solution, or say if there is no solution or infinitely many solutions.

1. $6(t + 6) = 7t + 41$

Answer: _____

2. $-2(k + 2) = 4k + 26$

Answer: _____

3. $-2(x - 3) = -2x + 6$

Answer: _____

4. $-6(t + 5) = 6t - 102$

Answer: _____

5. $3(n - 7) = -9n + 15$

Answer: _____

6. $5(y - 7) = 6y - 33$

Answer: _____

7. $3(x + 2) = 5x + 14$

Answer: _____

8. $-5(y - 1) = -7y + 9$

Answer: _____

9. $-3(t - 6) = 6t + 81$

Answer: _____

10. $5(t + 6) = 2t + 30$

Answer: _____

11. $2(m + 6) = 2m + 12$

Answer: _____

12. $6(t + 4) = 6t + 24$

Answer: _____