Name: _____ Date: _____

Fresh Math

Solutions to Equations - Challenge

For each equation, write the number of solutions (zero, one, or infinite).

1. $4x + 9 = 4x + 13$

2. $4x + 20 = 4x + 28$

3. $3x + 6 = 3x + 6$

4. $9x + 7 = 6x + 14$

5. $5x + 10 = 5x + 16$

6. $6x + 9 = 6x + 9$

7. If $3x + k = 3x + 6$ has infinite solutions, find k

8. $5x + 11 = 2x + 20$

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Solutions to Equations - Challenge

For each equation, write the number of solutions (zero, one, or infinite).

9. $5x + 13 = 5x + 16$

10. $6x + 12 = 6x + 12$

11. $3x + 20 = 3x + 25$

12. If $6x + 7 = 6x + k$ has no solution, k could be:

13. $8x + 14 = 8x + 14$

14. $6x + 6 = 6x + 16$

15. $7x + 8 = 7x + 15$

16. $3x + 13 = 3x + 13$

Solutions to Equations - Challenge - Answer Key

1. $4x + 9 = 4x + 13$

   zero

2. $4x + 20 = 4x + 28$

   zero

3. $3x + 6 = 3x + 6$

   infinite

4. $9x + 7 = 6x + 14$

   one

5. $5x + 10 = 5x + 16$

   zero

6. $6x + 9 = 6x + 9$

   infinite

7. If $3x + k = 3x + 6$ has infinite solutions, find k

   6

8. $5x + 11 = 2x + 20$

   one

Solutions to Equations - Challenge - Answer Key

9. $5x + 13 = 5x + 16$

   zero

10. $6x + 12 = 6x + 12$

    infinite

11. $3x + 20 = 3x + 25$

    zero

12. If $6x + 7 = 6x + k$ has no solution, k could be:

    16

13. $8x + 14 = 8x + 14$

    infinite

14. $6x + 6 = 6x + 16$

    zero

15. $7x + 8 = 7x + 15$

    zero

16. $3x + 13 = 3x + 13$

    infinite