

SOLUTIONS TO LINEAR EQUATIONS

Determine if each equation has one solution, no solution, or infinitely many solutions. Then circle the answer.

1. $-4g + 8 = 20$ one solution no solution infinitely many solutions	2. $-3b = 2b - 5b$ one solution no solution infinitely many solutions	3. $-3f = 2 - 3f$ one solution no solution infinitely many solutions
4. $2n - 12 = -12 + 2n$ one solution no solution infinitely many solutions	5. $7c - 4 = 3 + 7c$ one solution no solution infinitely many solutions	6. $3 - 5y = 2y + 24$ one solution no solution infinitely many solutions
7. $22 + w = 2(4w - 3)$ one solution no solution infinitely many solutions	8. $6h - 8 + 4h = 12 + 10h$ one solution no solution infinitely many solutions	9. $12j = 4(3j - 8)$ one solution no solution infinitely many solutions
10. $5(u - 9) = -2u - 45 + 7u$ one solution no solution infinitely many solutions	11. $2(4a - 7) - 3a = 19 - 6a$ one solution no solution infinitely many solutions	12. $3 - 11d = -6d + 3 - 5d$ one solution no solution infinitely many solutions

Challenge yourself! Write a number in each blank to create an equation with the given number of solutions.

13. No solution $-4x + 12 - 3x = \underline{\hspace{1cm}}x + 9$	14. Infinitely many solutions $-3(2 - 4p) = -6 + \underline{\hspace{1cm}}p$
15. Infinitely many solutions $6(2j - 1) - \underline{\hspace{1cm}}j = -6 + 10j$	16. No solution $-6 + \underline{\hspace{1cm}}t = 4(2t + 5) - 3t$