



Math Worksheet for 9th Grade

Analyzing the number of solutions to linear equations

Name: _____

Due Date: _____

Teacher: _____

Parent Sign: _____

Questions

1. Solve: $2x + 3 = 11$
2. Solve: $\frac{x}{3} + 5 = 9$
3. Solve: $4x - 7 = 9$
4. Solve: $-3x + 2 = 11$
5. Solve: $5(x - 2) = 15$
6. Solve: $2x + 4 = 2x + 7$
7. Solve: $3x - 1 = 3x - 1$
8. Solve: $0x = 0$
9. Solve: $0x = 5$
10. Solve: $2(x + 3) = 2x + 6$
11. Solve: $(\frac{1}{2})x + 3 = 7$
12. Solve: $3(x - 2) = 2x + 1$
13. Solve: $4x + 5 = 2x + 15$
14. Solve: $6 - x = 2x + 3$
15. Solve: $-2x + 4 = 10$
16. How many solutions does $7x + 2 = 7x + 3$ have?
17. How many solutions does $-5x + 9 = -5x + 9$ have?
18. Solve: $(\frac{3}{4})x - 2 = 1$
19. Solve: $x - 5 = 0$
20. How many solutions does $2(x + 1) = 2x + 2$ have?
21. How many solutions does $0 = 0$ have (as an equation in x)?
22. How many solutions does $x + 4 = x$ have?
23. How many solutions does $10 = 10$ have (as an equation in x)?
24. Solve: $2x = 4$
25. Solve: $\frac{x}{5} = 3$
26. Solve: $-x + 2 = x - 6$
27. Solve: $8 - 3x = 2$
28. How many solutions does $4(x - 2) = 4x - 8$ have?
29. How many solutions does $5x + 2 = 5x + 3$ have?
30. How many solutions does $0x + 7 = 7$ have?
31. Create a linear equation (in x) that has no solutions.



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32. Create a linear equation (in x) that has infinitely many solutions.
33. Create a linear equation that has exactly one solution.
34. Create a linear equation with fractions that has no solutions.
35. Create a linear equation with fractions that has infinitely many solutions.
36. Create a linear equation with negative coefficients that has no solutions.
37. How many solutions does $2(x - 4) + 3 = 2x - 5$ have?
38. How many solutions does $5(x + 2) = 5x + 9$ have?
39. Solve: $2(x + 4) = 3x + 8$
40. How many solutions does $7x - 14 = 7(x - 2)$ have?
41. How many solutions does $-2(x + 3) = -2x - 6$ have?
42. Solve: $9 = x + 4$
43. How many solutions does $x - (x + 1) = 0$ have?
44. How many solutions does $x - x = 5$ have?
45. How many solutions does $3(x + 1) = 3x + 2$ have?
46. How many solutions does $(2x + 4)/2 = x + 2$ have?
47. Create a linear equation whose solution is $x = 10$.
48. Create a linear equation that has no solutions (use coefficient 6).
49. Create a linear equation that has infinitely many solutions using zero coefficients.
50. Create a linear equation that has no solutions using zero coefficients.