Answers

1. $x = 4$

2. $x = 12$

3. $x = 4$

4. $x = -3$

5. $x = 5$

6. No solution

7. Infinitely many solutions

8. Infinitely many solutions

9. No solution

10. Infinitely many solutions

11. $x = 8$

12. $x = 7$

13. $x = 5$

14. $x = 1$

15. $x = -3$

16. No solution

17. Infinitely many solutions

18. $x = 4$

19. $x = 5$

20. Infinitely many solutions

21. Infinitely many solutions

22. No solution

23. Infinitely many solutions

24. $x = 2$

25. $x = 15$

26. $x = 4$

27. $x = 2$

28. Infinitely many solutions

29. No solution

30. Infinitely many solutions

31. Example: $2x + 3 = 2x + 5$ (no solution)

Math Worksheet for 9th Grade
Analyzing the number of solutions to linear equations
Name: Due Date: Teacher: Parent Sign:

32. Example: 4x - 1 = 4x - 1 (infinitely many solutions)

33. Example: 3x + 2 = 11 (exactly one solution: x = 3)

34. Example: $(\frac{1}{2})$x + 1 = $(\frac{1}{2})$x + 2 (no solution)

35. Example: $(\frac{1}{3})$x + 2 = $(\frac{1}{3})$x + 2 (infinitely many solutions)

36. Example: -3x + 4 = -3x + 1 (no solution)

37. Infinitely many solutions

38. No solution

39. x = 0

40. Infinitely many solutions

41. Infinitely many solutions

42. x = 5

43. No solution

44. No solution

45. No solution

46. Infinitely many solutions

47. Example: x + 5 = 15 (solution x = 10)

48. Example: 6x + 2 = 6x - 4 (no solution)

49. Example: 0x + 0 = 0 (infinitely many solutions)

50. Example: 0x + 3 = 0 (no solution)