



Name: _____

Due Date: _____

Teacher: _____

Parent Sign: _____

Math Worksheet for 9th Grade

Linear equations with parentheses

Questions — solve each equation (find x). Include parentheses and reasoning as needed.

1. $2(x + 3) = 14$

2. $3(x - 2) = 9$

3. $4(2x + 1) = 24$

4. $5(x + 4) = 35$

5. $-2(x - 5) = 8$

6. $6(x - 3) = 18$

7. $(x + 2) + (x - 3) = 9$

8. $2(x + 4) - 3 = 9$

9. $3(x + 1) + 2 = 14$

10. $4(x - 2) + 6 = 10$

11. $2(3x + 2) = 4x + 14$

12. $3(2x - 1) = x + 11$

13. $5(x - 2) = 2x + 7$

14. $(\frac{1}{2})(x + 6) = 7$

15. $-3(x + 2) = 9$

16. $2(x - 5) = x + 1$

17. $4(x + 3) = 2(2x + 5)$ (reasoning about solutions)

18. $3(x + 2) = 3x + 6$ (reasoning about solutions)

19. $2(x + 3) + 4 = 3(x - 1)$

20. $5 - 2(x + 1) = 1$

21. $(x + 5) - 2(x - 1) = 4$

22. $2(2x - 3) + x = 9$

23. $3(x - 4) + 2(x + 1) = 5$

24. $4(x + 1) - 2(x - 2) = 10$

25. $6 - (x + 2) = 3$

26. $-(2x + 3) = 7$

27. $2(x - 2) + 3(x + 4) = 29$

28. $3(x + 5) - 4 = 2x + 7$

29. $x + 2(x + 3) = 19$

30. $4(x - 1) + x = 23$

31. $2(3 + x) = 3(x + 2)$



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32. $(2x + 3) - (x - 4) = 10$

33. $3[2(x - 1)] = 9$

34. $(\frac{1}{3})(9x + 6) = 6$

35. $2(x + 3) = 2x + 6$ (reasoning about solutions)

36. Find k so that $2(x + 1) = 2x + k$ has infinitely many solutions.

37. Find all k so that $2(x + 1) = 2x + k$ has no solution.

38. $7(x - 2) = 21$

39. $-4(x + 1) = 12$

40. $(x + 3) + (2 - x) = 7$ (reasoning about solutions)

41. $2(x + 4) = x + 10$

42. $(3x + 4) - (x + 2) = 8$

43. $5(x + 2) - 3(x + 4) = 2$

44. $(2x - 5) + (x + 7) = 16$

45. $2(x - 3) - (x - 1) = 4$

46. $(\frac{1}{2})(4x - 2) = 5$

47. $-2(x - 4) + 3x = 14$

48. $3(x + 2) + 4(x - 1) = 2(5 + x)$

49. $(x - 2) + 2(1 - x) = 5$

50. $2(x + 2) + 4 = 3(x + 1) + 1$