Ex. 1 - Solving Linear Equations

Name: _____ Date: _____

Solve each equation. Show your work.

1. $x + 7 = 12$

2. $x - 3 = 9$

3. $2x = 14$

4. $\frac{x}{4} = 5$

5. $3x + 1 = 10$

6. $5x - 2 = 18$

7. $2x + 3 = x + 8$

8. $4x - 1 = 2x + 7$

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

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

11. $\frac{x}{2} + 3 = 7$

12. $\frac{x}{3} - 1 = 4$

13. $0.5x = 2.5$

14. $1.2x + 0.8 = 4.4$

15. $\frac{2x}{5} = 6$

16. $\frac{x + 4}{2} = 9$

17. $3x + 2 = 2x + 5$

18. $5x - 3 = 3x + 9$

19. $4(x - 1) = 2x + 6$

20. $2(3x + 1) = 4x + 10$

21. $\frac{x}{4} + \frac{1}{2} = 3$

22. $\frac{x}{6} - \frac{1}{3} = 2$

23. $0.25x + 1 = 3$

24. $0.1x - 0.5 = 0.3$

25. $\frac{3x}{4} = 12$

26. $\frac{x + 6}{3} = 4$

27. $7x + 2 = 5x + 10$

28. $6x - 4 = 4x + 8$

29. $5(x + 3) = 3x + 21$

30. $3(2x - 1) = 5x + 4$

31. $\frac{x}{5} + 2 = \frac{x}{10} + 4$

32. $\frac{x}{2} - 3 = \frac{x}{4} + 1$

33. $0.4x + 2 = 0.2x + 5$

34. $0.6x - 1.2 = 0.3x + 0.6$

35. $\frac{2x}{3} + 1 = \frac{x}{6} + 5$

36. $\frac{x + 2}{4} = \frac{x - 1}{3}$

37. $8x + 3 = 6x + 11$

38. $9x - 5 = 7x + 3$

39. $4(x + 2) = 2(x + 6)$

40. $3(x - 2) = 2(x + 1)$

41. $\frac{x}{2} + \frac{x}{3} = 10$

42. $\frac{x}{4} - \frac{x}{8} = 2$

43. $0.5x + 0.25x = 3$

44. $0.8x - 0.3x = 1$

45. $\frac{3x}{5} + 4 = 10$

46. $\frac{x + 8}{4} = 5$

47. $10x + 5 = 7x + 20$

48. $12x - 6 = 8x + 14$

49. $6(x + 1) = 4(x + 3)$

50. $5(2x - 3) = 3(3x + 1)$

51. $\frac{x}{3} + \frac{x}{6} = \frac{x}{2} + 1$

52. $\frac{x}{5} - \frac{x}{10} = \frac{x}{2} - 3$

53. $0.75x + 1.5 = 0.25x + 4$

54. $0.9x - 0.4x = 0.2x + 1$

55. $\frac{4x}{7} = 8$

56. $\frac{x + 10}{5} = 3$

57. $9x + 4 = 6x + 19$

58. $11x - 7 = 8x + 20$

59. $7(x + 2) = 5(x + 4)$

60. $4(3x - 2) = 2(5x + 3)$

61. $\frac{x}{4} + \frac{x}{8} = 6$

62. $\frac{x}{3} - \frac{x}{9} = 4$

63. $0.2x + 0.3x = 5$

64. $0.7x - 0.2x = 2$

65. $\frac{5x}{6} + 2 = 12$

66. $\frac{x + 12}{6} = 4$

67. $12x + 3 = 9x + 24$

68. $15x - 10 = 10x + 25$

69. $8(x + 1) = 6(x + 3)$

70. $6(2x - 1) = 4(3x + 2)$

71. $\frac{x}{2} + \frac{x}{4} = \frac{x}{8} + 7$

72. $\frac{x}{5} - \frac{x}{15} = \frac{x}{3} - 2$

73. $0.5x + 0.1x = 1.2$

74. $0.8x - 0.5x = 0.9$

75. $\frac{7x}{8} = 14$

76. $\frac{x + 15}{7} = 5$

77. $14x + 6 = 10x + 30$

78. $16x - 8 = 12x + 20$

79. $9(x + 2) = 7(x + 5)$

80. $5(4x - 3) = 3(6x + 1)$

81. $\frac{x}{3} + \frac{x}{9} = 8$

82. $\frac{x}{4} - \frac{x}{12} = 5$

83. $0.4x + 0.6x = 10$

84. $0.9x - 0.6x = 3$

85. $\frac{3x}{10} + 5 = 20$

86. $\frac{x + 20}{8} = 6$

87. $15x + 9 = 12x + 36$

88. $18x - 12 = 14x + 28$

89. $10(x + 1) = 8(x + 4)$

90. $7(3x - 2) = 5(4x + 3)$

91. $\frac{x}{5} + \frac{x}{10} = \frac{x}{2} + 2$

92. $\frac{x}{6} - \frac{x}{18} = \frac{x}{3} - 4$

93. $0.25x + 0.75x = 8$

94. $0.6x - 0.1x = 2.5$

95. $\frac{9x}{11} = 18$

96. $\frac{x + 21}{9} = 7$

97. $16x + 8 = 12x + 40$

98. $20x - 15 = 15x + 35$

99. $11(x + 2) = 9(x + 6)$

100. $8(5x - 4) = 6(6x + 5)$

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