

Section 2.1: Linear equations

Chapter 2: Functions, Linear equations, and inequalities

#1 – 20: Solve, be sure to check your answer. (These problems only require step 3 and step 5, or step 4 and step 5. None of these problems require steps 1 and 2.)

1) $x + 5 = 10$

2) $y + 6 = 14$

3) $x - 13 = 16$

4) $y - 15 = 23$

5) $x + \frac{1}{2} = \frac{5}{2}$

6) $y + \frac{3}{4} = \frac{11}{4}$

7) $y - 3 = \frac{1}{2}$

8) $z - 5 = \frac{2}{3}$

9) $3x = 21$

10) $4y = 28$

11) $-6z = 30$

12) $-4x = 48$

13) $\frac{2}{3}x = 18$

14) $\frac{3}{4}y = 21$

15) $\frac{-4}{5}z = 16$

16) $\frac{-5}{4}x = 30$

17) $\frac{4}{7}x = 10$

18) $\frac{2}{5}y = 9$

19) $\frac{-3}{4}z = 13$

20) $\frac{-4}{3}x = 20$

#21 -44: Solve, be sure to check your answer. (These problems will require most of steps 2, 3, 4 and 5. They will not require step 1.)

21) $6x + 10 = 22$ 22) $5x + 18 = 38$ 23) $8x - 19 = 13$ 24) $6z - 20 = 40$

25) $\frac{2}{3}x + 24 = 30$ 26) $\frac{3}{4}y + 15 = 21$ 27) $\frac{-2}{3}y - 14 = -28$ 28) $\frac{-3}{2}z - 5 = -11$

29) $15 = 3x + 18$ 30) $28 = 2z + 40$ 31) $-44 = 11x + 10$ 32) $-32 = 4x + 15$

33) $22 = \frac{1}{2}x - 20$ 34) $14 = \frac{3}{4}x - 1$ 35) $17 = \frac{2}{3}z - 14$ 36) $13 = \frac{4}{3}y + 10$

37) $8x + 30 = 5x$ 38) $14y + 24 = 10y$ 39) $5z - 32 = -3z$ 40) $2z - 24 = -6z$

41) $4x = 5x - 12$ 42) $12x = 13x - 15$ 43) $15x = 9x + 41$ 44) $33y = 8y + 49$

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#45 – 64: Solve, be sure to check your answer. (These problems will require all 5 steps.)

45) $3x + 55 - 9x = 24 + 4x - 9$

46) $19x + 14 - 6x = 32 + 8x - 8$

47) $3x + 55 + 7 = 24x + 4x + 12$

48) $9x + 14 - 2 = -32 + 7x - 8$

49) $3(5y - 4) = 48$

50) $2(3y - 11) = 8$

51) $-3(2x - 5) = -9$

52) $-7(4x - 1) = -49$

53) $21 = -7(2x - 3)$

54) $15 = -2(5x - 1)$

55) $5x + 3(6x - 7) = 25$

56) $2x + 4(3x - 5) = 22$

57) $2x + 10 = 4(x - 1) + 8$

58) $7x + 12 = 5(x - 3) + 7$

59) $7x - 3(2x - 4) = 11x + 2$

60) $8x - 2(3x - 4) = 4x + 2$

61) $8x - 3(x + 2) = 2(2x + 1) - 3$

62) $10x - 4(x + 2) = 3(3x + 1) - 14$

63) $16 = 8(2x + 1) - 5(2x + 2)$

64) $16 = 5(3x + 1) - 4(3x - 2)$