

In Exercises 1–14, solve the given equation and answer any related questions.

1. $5x + 10 + 2x = 59$

2. $-4x + 11 - 2x = 83$

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

4. $\frac{4}{3}x - 2 = -6$

5. $10x - 7 + 4x = 7 + 7x - 14$

6. $7x - 4 = -3 + 4x$

7. $3x^2 = 96$

8. $\frac{x+9}{7} = -12$

9. $4\left(\frac{1}{2}x + \frac{1}{2}\right) = 2x + 2$

10. $13.7x - 4.7 = 9.9x + 8.1x$

11. $2[x - 6(2x + 5)] = 5x - (3x + 12)$

12. $-(3x - 5) + 2(x - 2) + 3x = 4x - 17$; find $4x$

13. $104 = \frac{1}{2}[(360 - x) - x]$

14. $11x + 4(x + 2) = 8$

