

In Exercises 1–3, simplify the expressions.

1. $x^2(2x + 5) - (x - 10)$

2. $\frac{8x^2y^5z^2}{2xy^3z}$

3. $-(3x - 5) + 2(x - 2) + 3x$

In Exercises 4-19, solve each equation. If there is no solution, write “no solution”.

4. $4x - 7 = 13$

5. $2y + 3 + 7y = 30$

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

7. $\frac{3}{4}x = \frac{3}{2}$

8. $-x + 5 = -4$

9. $6m - 3 = 2m + 5$

10. $\frac{x + 5}{3} = -15$

11. $8x - 5 + 2x = 5 + 5x - 12$

12. $2x^2 = 32$

13. $\frac{1}{2}h + \frac{3}{4} = \frac{9}{4}$

14. $3(6 - 9m) = -9(3m - 2)$

15. $\frac{5}{6}x - \frac{1}{3} = x - \frac{3}{2}$

16. $4(5x + 6) = 2x + 5$

17. $9(x + 1) - 3x = 2(3x + 1) - 4$

18. $2[x - 3(2x + 5)] = 5x - (3x + 6)$

19. If $8x - 3(x + 4) = 4[x + 2(3 - x)]$,
then what is $6x$?

In Exercises 20 and 21, solve for z .

20. $F = 3(R - z + 1)$

21. $R^2 - y^2 - xz = A$

