

Intermediate Algebra Skill

Simplifying Algebraic Expressions Involving Nested Symbols of Grouping

Simplify.

1. $2x - [5x + 2(x - 1) - 3(x + 4)]$

2. $a - 2[a - (2a - 3) + 4(7 - a) - 8]$

3. $-3(p - q) - [p - (q - p - 5)]$

4. $2[3(2y - z + 1) + 2(-5z - y - 3) - (1 + 3y - z)]$

5. $-[m - n - (-m - n - 6) - 2(n - m + 5)]$

6. $5[-2(2h - 1) + 3(-4 + 2h) - (-11)]$

7. $8ab - (2ab - 7) - [9ab - (8 - ab)]$

8. $-4[2xy + 2(3xy - 2) - (6 + yx)]$

9. $-[3(x^2y - xy^2 + 1) - 6] - [2 - 4(1 - y^2x - 3yx^2)]$

10. $16nm - [m^2 - 2(mn - 3m^2)] + 3[-(-4m^2) - (m^2 + mn)]$

11. $7x - \{x - [2x - (8x - 1) - (-9x + 2)]\}$

12. $-4a - 2\{a - [3 - (a - 2a - 5) + 3a]\}$

13. $-\{-2[c + 3(c - 1)] - 5c + 2\} + \{-3 + 2[8 - (7 - c)]\}$

14. $-2[y + 2(y - 3)] + \{8y - [9 - 3(2 - y)]\}$

15. $10 - \{8 - 6[wz - 2(3 - zw)]\} + 3\{-4 + 5[-(zw - 1) - 2wz]\}$

16. $2 - 5\{-[-2(yb + 3) + 4by]\} + 3[1 - (-2yb) - (-2b)]$

Answers to Simplifying Algebraic Expressions Involving Nested Symbols of Grouping

1. $-2x + 14$

2. $11a - 46$

3. $-5p + 4q - 5$

4. $2y - 24z - 8$

5. $-4m + 2n + 4$

6. $10h + 5$

7. $-4ab + 15$

8. $-28xy + 40$

9. $-15x^2y - xy^2 + 5$

10. $15mn + 2m^2$

11. $9x - 1$

12. $2a + 16$

13. $15c - 9$

14. $-y + 9$

15. $-31 - 27wz$

16. $-25 + 16yb + 6b$