

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.  $-25+16yb+6b$