

**LESSON**  
**1.2****Challenge Practice***For use with pages 10–17***In Exercises 1–6, add parentheses to make a true statement.**

1.  $4ax^2 + 7x - b - bx^2 - ax + 3 = 3x^2 + 9x - 8$  when  $a = 2, b = 5$
2.  $3ax^3 - 8bx^2 - 10x^2 + 2ax^b + 3x^3 - 4ax = 12x^3 - 18x^2 - 18x$  when  $a = 3, b = 1$
3.  $2ax + b^2 - abx^2 - 6a = 6x^2 + 40x + 37$  when  $a = 2, b = 5$
4.  $7 + 3a - 2b \div 4^2 = 74$  when  $a = 2, b = 6$
5.  $4a - ab + b - a^2 = -15$  when  $a = 4, b = 3$
6.  $ab - 5b - (-2b)^2 + 4a = 21$  when  $a = -6, b = -3$
7. You purchase 45 shares of stock, investing in three different companies. Company A stock is \$15 per share, Company B stock is \$12 per share, and Company C stock is \$18 per share. You purchase twice as many shares of Company C stock as Company A stock.
  - a. Write and simplify an expression for the total cost of  $x$  shares Company A stock,  $y$  shares Company B stock, and the Company C stock.
  - b. When you sell the stocks, Company A stock has increased 20%, Company B stock has increased 25%, and Company C stock has decreased 10%. Write and simplify an expression for the total proceeds from the sale of  $x$  shares of Company A stock,  $y$  shares of Company B stock, and the Company C stock.
  - c. You purchase 10 shares of Company A stock. Determine the total purchase price for the 45 shares, and the total proceeds from the sale of the 45 shares of stock.