## Practice 9-8

## Factoring by Grouping

Factor each polynomial by grouping.

1. 
$$2x^3 + 4x^2 + x + 2$$

4. 
$$2x^3 + 12x^2 - 5x - 30$$

7. 
$$xy + 4y - 2x - 8$$

10. 
$$ax + bx - ay - by$$

13. 
$$2ax + 6xc + ba + 3bc$$

2. 
$$2x^3 + 6x^2 + 3x + 9$$

5. 
$$7x^3 - 4x^2 + 7x - 4$$

8. 
$$ab + 7b - 3a - 21$$

**10.** 
$$ax + bx - ay - by$$
 **11.**  $2x^2 - 6xy + 5x - 15y$  **12.**  $3x^2 - 6xy + 2x - 4y$ 

**14.** 
$$x^2y - 3x^2 - 2y + 6$$

**1.** 
$$2x^3 + 4x^2 + x + 2$$
 **2.**  $2x^3 + 6x^2 + 3x + 9$  **3.**  $5x^3 - 25x^2 + 2x - 10$ 

**4.** 
$$2x^3 + 12x^2 - 5x - 30$$
 **5.**  $7x^3 - 4x^2 + 7x - 4$  **6.**  $9x^3 - 12x^2 - 18x + 24$ 

7. 
$$xy + 4y - 2x - 8$$
 8.  $ab + 7b - 3a - 21$  9.  $ax + bx + ay + by$ 

12. 
$$3x^2 - 6xy + 2x - 4y$$

**13.** 
$$2ax + 6xc + ba + 3bc$$
 **14.**  $x^2y - 3x^2 - 2y + 6$  **15.**  $6 + 2y + 3x^2 + x^2y$