## NAME

**Module 12** Simplifying Algebraic Expressions by Factoring Polynomials

**Lesson 2** Factoring by Grouping



## Set 1

**1.** Factor: 
$$x(x - 4) + 4(x - 4)$$

$$(x-4)(x+4)$$

**2.** Factor: 
$$a(a + b) + b(a + b)$$

$$(a + b)(a + b)$$
 or  $(a + b)^2$ 

**3.** Factor: 
$$(x + y) + z(y + x)$$

$$(x+y)(1+z)$$

## Set 2

**1.** Factor: 
$$x^2 + xy + xy + y^2$$

$$(x + y)(x + y) \text{ or } (x + y)^2$$

**2.** Factor: 
$$ab + 7 + 7b + a$$

$$(b + 1)(a + 7)$$

**3.** Factor: 
$$3rs - 4 + 12r - s$$

$$(3r-1)(s+4)$$