NAME

**Module 11** Simplifying Algebraic Expressions

with Polynomials

**Lesson 5** Multiplying Polynomials

guided notes

## **Lesson Objectives**

- Use the Product of Conjugates pattern to find the product of two binomials.
- Use the Square of a Sum and Square of a Difference patterns to find the product of two binomials.
- Use horizontal and vertical methods to multiply polynomials using the Distributive Property.

For any expressions a and b, (a + b)(a - b) = \_\_\_\_\_\_. This special product is called the Product of \_\_\_\_\_\_.



**1** Simplify: (5 + r)(5 - r)

For any expressions a and b,  $(a + b)^2 =$  \_\_\_\_\_\_. This special product is called the Square of a \_\_\_\_\_\_.

For any expressions a and b,  $(a-b)^2 =$  \_\_\_\_\_\_. This special product is called the Square of a \_\_\_\_\_\_.



Simplify:  $(5y + 1)^2$ 



Simplify:  $(m - 4n)^2$