Module 11 Simplifying Algebraic Expressions with Polynomials
Lesson 4 Multiplying Monomials and Binomials

## Lesson Objectives

- Find the product of two monomials.
- Find the product of a monomial and a binomial.
- Find the product of two binomials using the Distributive Property twice.
- Find the product of two binomials using the FOIL Method.

To multiply monomials, use the $\qquad$ and

Associative Properties to rearrange the terms.

Then use the multiplication rule for exponents to
simplify the expression.
(1) Simplify: $x^{3} y \cdot 6 x y^{2}$
$6 x^{4} y^{3}$
(2) Simplify: $2 x(x+2)$
$\underline{2 x^{2}+4 x}$
(3) Simplify: -4ab(8a - $\left.3 b^{3}\right)$
$-32 a^{2} b+12 a b^{4}$

To multiply binomials either use the Distributive Property twice or use the FOIL Method.

FOIL stands for F irst $\qquad$ , O uter

I nner , L ast
(4) Simplify: $(2 p-5)(p-4)$

$$
2 p^{2}-13 p+20
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