Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples
Powers of Monomials	To raise a monomial to a power, use the **POWER RULE:** $\left(x^a\right)^b =$
Examples	**Directions:** Simplify.

1. $(x^2)^5$

2. $(m^7n^4)^4$

3. $(cd^2)^3$

> **Examples with Coefficients:**
> - Raise the coefficient to the given power.
> - SIMPLIFY the variables with the power rule.

4. $(5x^7)^2$

5. $(2x^2y)^5$

6. $(-2p^4q^6)^2$

7. $(-4c^3d^4)^4$

8. $(-3x^2)^3$

9. $\left(\dfrac{1}{2}a^3b^4c^5\right)^3$

Mixed Practice

Directions: Simplify each expression completely.

10. $(x^3y^3)^3$

11. $(-a^2b)^4$

12. $(-2ab^2)^2$

13. $\left(\dfrac{1}{3}abc\right)^2$

14. $(2a^2)^3$

15. $(3x^3y)^4$