

## Basic Rules of Exponents Homework

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify.**

1)  $-2x^4 \cdot -x^4$

2)  $3n^4 \cdot -4n^4$

3)  $y \cdot 3xy^2$

4)  $-2x^4y^3 \cdot -4x^4y^3$

**Simplify.**

5)  $(4n^2)^3$

6)  $(-4x^4)^2$

**Combination Problems : Simplify.**

7)  $(-2n^2)^4 \cdot 2n^3$

8)  $(2u^2v^4)^2 \cdot (-v^2)^2$

**Simplify. Your answer should contain only positive exponents.**

$$9) \frac{3x^2}{x^3}$$

$$10) -\frac{2x^3}{x^4}$$

$$11) \frac{x^4 y^2}{3y^2}$$

$$12) \frac{4xy^2}{3yx^3}$$

**Simplify.**

$$13) 2x^2 \cdot (x^3)^0$$

$$14) 2m^3 \cdot (m^3)^4$$

$$15) \frac{(r^0)^4}{r^0}$$

$$16) \left( \frac{2k^2}{(2k^4)^0} \right)^3$$