

Intermediate Algebra

5-1

(Day 2)

Laws of Exponents

- 1) When multiplying, _____ the powers.
- 2) When dividing, _____ the powers.
- 3) When the power is outside the parentheses, _____ the powers.
- 4) A negative power means _____.

Simplify.

$$72) \frac{(-4x^2y^3)^2}{(2xy^2)^3}$$

$$84) \frac{a^{3n-2}b^{n+1}}{a^{2n+1}b^{2n+2}}$$

$$86) \left(\frac{4^{-2}xy^{-3}}{x^{-3}y}\right)^3 \left(\frac{8^{-1}x^{-2}y}{x^4y^{-1}}\right)^{-2}$$

Write in scientific notation.

90) 0.0000000524

Write in decimal notation.

100) 4.35×10^9

112)
$$\frac{(6.9 \times 10^{27})(8.21 \times 10^{-13})}{4.1 \times 10^{15}}$$

Assignment:

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67-113 odd