

# Intermediate Algebra

7-1

## Laws of Exponents Review

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### Laws of Exponents

$$36^{\frac{1}{2}} = \underline{6}$$

$$5^{-2} = \underline{\frac{1}{25}}$$

$$-6^0 = \underline{-1}$$

$$(x^6)^3 = \underline{x^{18}}$$

$$(x+4)^2 = \underline{x^2+8x+16}$$

$(x+4)(x+4)$   
FOIL

$$x^4 \cdot x^3 = \underline{x^{12}}$$

$$\frac{x^9}{x^5} = \underline{x^4}$$

$$x^2 + x^7 = \underline{\text{as is}}$$

$$(3^2 \cdot 7^4)^5 = \underline{3^{10} \cdot 7^{20}}$$

$$x^{-4} = \underline{\frac{1}{x^4}}$$

$$16^{\frac{3}{4}} = \underline{8}$$

$$x^{\frac{1}{3}} = \underline{\sqrt[3]{x}}$$

$$x^a x^b = \underline{x^{a+b}}$$

$$x^a + x^b = \underline{\text{as is}}$$

$$(x^a)^b = \underline{x^{ab}}$$

$$x^{-a} = \underline{\frac{1}{x^a}}$$

$$(x^a \cdot y^b)^c = \underline{x^{ac} y^{bc}}$$

$$\frac{x^a}{x^b} = \underline{x^{a-b}}$$

$$2^{-3} = \underline{\frac{1}{8}}$$

$$a^1 = \underline{a}$$

$$a^0 = \underline{1}$$

$$(a+b)^2 = \underline{a^2+2ab+b^2}$$

$(a+b)(a+b)$   
FOIL

$$-8^{\frac{4}{3}} = \underline{-16}$$

think  
 $-(8^{\frac{4}{3}})$

$$x^{\frac{2}{3}} = \underline{\sqrt[3]{x^2}}$$