

2.2 B Exponent Properties

Remember: $a^m a^n = a^{m+n}$

$$(a^n)^m = a^{mn}$$
$$\frac{a^m}{a^n} = a^{m-n}$$

$$2. 1n^1 \cdot 3n^{1/3}$$

$$3n^{4/3}$$

Busy Work

$$\frac{1 \cdot 3 + 1}{1 \cdot 3} = \frac{4}{3}$$

$$6. \frac{4xy^{5/4}}{x^{4/3}}$$

BW

$$4x^{-1/3}y^{5/4}$$

$$\frac{4y^{5/4}}{x^{1/3}}$$

$$\frac{3-4}{3} = -\frac{1}{3}$$

$$9. (u^{5/3} v^{2/3})^2$$

$$u^{10/3} v^{4/3}$$

BW

$$\frac{5}{3} \cdot \frac{2}{1} = \frac{10}{3}$$

$$\frac{2}{3} \cdot \frac{2}{1} = \frac{4}{3}$$

Remember:

radical to exponent

exponent to radical

$$\sqrt[3]{(5x)^2}$$

$$(5x)^{\frac{2}{3}}$$

$$(3c)^{\frac{4}{7}}$$

$$\sqrt[7]{(3c)^4}$$

Factor (GCF Only)

$$\frac{3x^3}{x^2} - \frac{x^2}{x^2}$$

$$x^2(3x - 1)$$

Factor (X)

$$x^2 + 2x - 3$$

$$(x - 1)(x + 3)$$

$$\begin{array}{r} -3 \\ 2 \end{array}$$

Factor (Garbage)

$$2x^2 - 5x - 12$$

$$(2x - 8)(2x + 3)$$

$$(x - 4)(2x + 3)$$

$$\begin{array}{r} -24 \\ -8 \quad 3 \\ 5 \end{array}$$