Bell Work   1/23/2015

Simplify the following:

$$1. \frac{5x^5 w^0}{w^4 5x^3} \cdot 1 = \frac{x^2}{5w^4}$$

$$\frac{5}{5}$$

Collect Bell Work.

Get out class work from the block day.

Name: _____KEY_____

Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

1. $(d^3n^{-2})^2(d^{-2}n^4)^3$

$$d^{3\cdot2} \quad n^{-2\cdot2} \quad d^{-2\cdot3} \quad n^{4\cdot3}$$

$$d^6 \quad n^{-4} \quad d^{-6} \quad n^{12}$$

$$d^{6+-6} \quad n^{-4+12}$$

$$1\cdot n^8 = \boxed{n^8}$$

Name: _____KEY_____

Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

2. $\dfrac{x^0 y^{-7} z^{12}}{w^{-4} z^6}$

$\dfrac{1\, w^4\, z^{12-6}}{y^7} = \left(\dfrac{w^4\, z^6}{y^7}\right)$

Name: _____KEY_____

Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

3. $(t^3 s^{-4})^{-3}$

$t^{3 \cdot -3} s^{-4 \cdot -3}$

$t^{-9} s^{12}$

$$\dfrac{s^{12}}{t^9}$$

Name: _____KEY_____

Date: _____ Hour: ___

Properties of Exponents - Practice

Simplify the following:

4. $(m^4 h^3)(m^3 h^2)$

$m^{4+3} \, h^{3+2}$

$m^7 h^5$

Name: ___KEY___

Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

5. $\dfrac{5x^9y^{12}}{x^4y^5}$

$$5x^{9-4}y^{12-5} = \boxed{5x^5y^7}$$

Name: _____ KEY _____
Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

6. $(z^0 y^3 x^{-8})^2$

$z^{0 \cdot -2} \quad y^{3 \cdot 2} \quad x^{-8 \cdot 2}$

$z^0 y^6 x^{-16}$

$$\frac{1 \cdot y^6}{x^{16}} = \boxed{\frac{y^6}{x^{16}}}$$

Name: _____ KEY _____

Date: _____ Hour: ___

Properties of Exponents - Practice

Simplify the following:

7. Choose **ALL** correct answers. Which of the following expressions is equivalent to $\frac{1}{x^3}$ when simplified?

A. $(x^3)^{-3} \cdot x^6$ $x^{3 \cdot -3} \quad x^6$ $x^{-9} x^6$ x^{-9+6} $x^{-3} = \boxed{\frac{1}{x^3}}$	**B.** $(x^9 \cdot x^{-6})^{-1}$ $x^{9 \cdot -1} \quad x^{-6 \cdot -1}$ $x^{-9} \quad x^6$ x^{-9+6} $x^{-3} = \boxed{\frac{1}{x^3}}$
C. $(x^{-9} + x^6)^{-1}$ $x^{-9 \cdot -1} + x^{6 \cdot -1}$ $\boxed{x^9 + x^{-6}}$ $\longleftarrow$ _can't combine._	**D.** $(x^{15})^{-2} \cdot x^{-10}$ $x^{15 \cdot -2} \quad x^{-10}$ $x^{-30} \cdot x^{-10}$ $x^{-30 + -10}$ $x^{-40} = \boxed{\frac{1}{x^{40}}}$

9

Name: _____KEY_____

Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

8. **Describe** and **correct** the error in evaluating the expression:

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

$$= \frac{1}{(5)(5)}$$

$$= \frac{1}{25}$$

$$5^{-2} = \frac{1}{(-5)(-5)}$$

$$= -\frac{1}{25}$$

negative 5 is not the base, 5 is.

also — a neg. x a neg = pos.

Name: _____KEY_____

Date: _____ Hour:___

Properties of Exponents - Practice

Simplify the following:

9. Choose **ALL** correct answers. Which of the following expressions is equivalent to w^2 when simplified?

A. $(w^4)^{-2} \cdot w^{10}$

$w^{4 \cdot -2} \cdot w^{10}$

$w^{-8} \cdot w^{10}$

w^{-8+10}

$\boxed{w^2}$

B. $(w^2 \cdot w^{-4})^{-1}$

$w^{2 \cdot -1} \cdot w^{-4 \cdot -1}$

$w^{-2} \cdot w^4$

w^{-2+4}

$\boxed{w^2}$

C. $(w^{-8} + w^6)^{-1}$

$w^{-8 \cdot -1} + w^{6 \cdot -1}$

$\boxed{w^8 + w^{-6}}$

Cannot be Combined

D. $(w^6)^{-2} \cdot w^{-3}$

$w^{6 \cdot -2} \cdot w^{-3}$

$w^{-12} \cdot w^{-3}$

$w^{-12 + -3} = w^{-15} = \boxed{\dfrac{1}{w^{15}}}$