Do Now:
Evaluate the expression.

1. 5^{-2} $\frac{1}{25}$ 2. $(-4)^{-3}$ $\frac{1}{-64}$ 3. $6 * 6^{-3}$ $\frac{1}{36}$ 4. $10^{-5} * 10^{7}$ 100

Simplify. Write the expression using only positive exponents.

5. $-6m^{-1} = -6m^{-1}$ $= \frac{-6}{m}$ 6. $b^2 * b^{-2} = b^{2+(-2)} = b^0 = 1$

7. $\frac{5x^4}{x^7}$ 8. $\frac{10a^{-3}}{a^4}$

7) $\frac{5x^4}{x^7} = 5x^{4-7} = 5x^{-3} = \frac{5}{x^3}$

$5^1 x^{-3}$

Write the expression without using a fraction bar.

a.) $\frac{1}{16} = \frac{1}{4 \cdot 4} = \frac{1}{4^2} = 4^{-2}$

16^{-1} $= \frac{1}{2^4} = 2^{-4}$

b.) $\frac{a^2}{c^3} = a^2 c^{-3}$

Write the expression without using a fraction bar.

a.) $\frac{1}{25} = \frac{1}{5 \cdot 5} = \frac{1}{5^2} = 5^{-2}$

25^{-1}

b.) $\frac{x^6}{y^2} = \frac{x^6 y^{-2}}{1} = x^6 y^{-2}$

Find the product or quotient, use only positive exponents

a.) $5^{10} * 5^{-6} = 5^{10+(-6)} = 5^4$

b.) $\frac{8n^{-3}}{n^2} = 8n^{-3-2} = 8n^{-5} = \frac{1}{8n^5}$ $\frac{8}{n^5}$

Find the product or quotient, use only positive exponents

a.) $3^8 * 3^{-10} = 3^{8+(-10)} = 3^{-2} = \frac{1}{3^2}$

b.) $\frac{10a^4}{a^{-4}} = 10a^{4-(-4)} = 10a^{4+4} = 10a^8$

Practice 4.5 and 4.6
Simplify Exponents

7.NS
7.EE

- SWBAT simplify expressions with exponents.
- SWBAT build knowledge through problem solving.

- Calculators: No

"Don't blame the sea if you cannot catch a fish."

Working individually or with a partner, complete the workbook.

Pre-Algebra Classwork

Workbook pg. 51-52 #2-24 evens, 29-34 all
Workbook pg. 53-54 #1, 4-7, 10-19, 23-38 all all all

Homework

Finish workbook assignment