

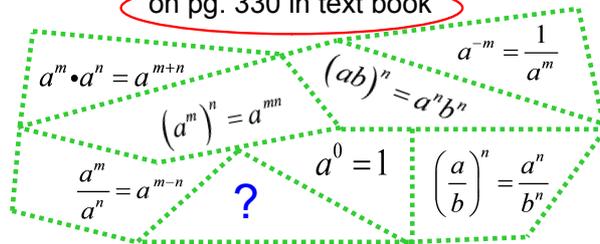
Bellwork:

Synectics

What are some things that you enjoy doing. Write as many as you can think of.

Chapter 5.1: Properties of Exponents

on pg. 330 in text book



- List of what you enjoy.
- pick one. list things within it.
- pick 4.

<u>energize</u>	<u>Relaxing</u>
<u>Stressless</u>	<u>Dreaming</u>

Properties of Exponents is like..... because.....

ex. Simplify:

$$(-4 \cdot 2^5)^2$$

$$(-4)^2 \cdot (2^5)^2$$

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

$$16 \cdot 1024$$

$$16,384$$

$$\left(\frac{11^5}{11^8}\right)^{-1}$$

$$\left(\frac{1}{11^3}\right)^{-1}$$

$$\frac{1^{-1}}{(11^3)^{-1}} = \frac{1}{11^{-3}}$$

$$11^3 = 1331$$

$$11^0 = 1$$

$$11^1 = 11$$

$$11^2 = 121$$

$$11^3 = 1331$$

$$11^4 = 14641$$

$$11^5 = 161051$$

$$11^6 = 1771561$$

Scientific Notation:

A swarm of locusts is about 85 million per square kilometer over 1200 square kilometers. How many locusts?

$85,000,000 \rightarrow 8.5 \times 10^7$   
 $1200 \rightarrow 1.2 \times 10^3$   
 $8.5 \times 10^7 \times 1.2 \times 10^3$   
 $10.2 \times 10^{10}$   
 $1.02 \times 10^{11}$

ex. Simplify:

$b^{-4}b^6b^7$        $\left(\frac{r^{-2}}{s^3}\right)^{-3}$        $\frac{16n^5n^{-5}}{2n^{-5}}$

ex. Simplify:

$\frac{(x^{-3}y^3)^2}{x^5y^6} \rightarrow \frac{x^{-6}y^6}{x^5y^6} \rightarrow \frac{1}{x^{11}}$

Homework: Chapter 5.1 pg.333  
 #'s 18-27,32-35,40,41

$(x+3)^2 = (x+3)(x+3)$   
 $x^2 + 3x + 3x + 9$   
 $x^2 + 6x + 9$