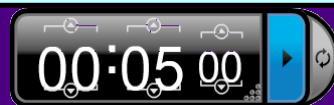


January 5th 2014

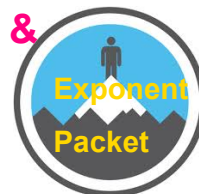
Due Today: Winter Break Packet + BtB 5  
Due Next Class: HW 6.1

## Unit 6: Exponents

## Lesson 6.1: Review of Exponent Laws



Get Ready: **Get out your BtB 5, your winter break packet & notes from the videos. Do problems below:**



**Simplify. Your answer should contain only positive exponents.**

1)  $3b^4 \cdot 2b^3$

2)  $\frac{4m^9}{2m^4}$

3)  $(2n^4)^3$

4)  $3t^3 \cdot 2t^0$

5)  $-3b^{-4}$

6)  $4x^2y^4 \cdot 4x^3y^{-8}$

## Get Ready Review

$$1) 3b^4 \cdot 2b^3 = 6b^7$$

$$2) \frac{4m^9}{2m^4} = 2m^{9-4} \\ = 2m^5$$

$$3) (2n^4)^3 = 8n^{12} \rightarrow (2n^4)(2n^4)(2n^4) \\ 8n^{12}$$

$$4) 3t^3 \cdot 2t^0 = 6t^3$$

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

$$6) 4x^2y^4 \cdot 4x^3y^{-8} \\ 16x^5y^{-4} \\ \frac{16x^5y^{-4}}{y^4}$$

## EXPONENT LAWS

Power of a Power

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

Multiplication

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

Division

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

Zero

$$x^0 = 1$$

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

Negative

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

## ORDER OF EXPONENT LAWS

P M D Z N

Please make delicious ziti now

$$(-3)^2 a^2 = 9a^2$$

$$(3a)^2$$

Check exponent packet using keys at your table.

Ask your group members to help with questions that you got wrong.

Each group should choose 1 question they want to see done as a class: something that you don't understand, or something you do understand but was confusing at first.

## EXPONENT PACKET Qs

$$32) (4x^{-2}y^2)^4$$

$$\begin{array}{r} 4^4 x^{-8} y^8 \\ \hline x^8 \end{array}$$

$$12) (5x)^5$$

$$5^5 x^5 \\ 3125x^5$$

$$29) a^4 b^4 \cdot 3a^5 = 3a^9 b^4$$

## Pre-quiz Practice:

$$(2a^{-1}b^{-4})^3$$

$$\frac{8}{a^3b^{12}}$$

$$\frac{(2x^0)^2 \cdot y^{-1}}{2x^2}$$

$$\frac{2}{x^2y}$$

$$= \frac{\cancel{4}x^{\circ} \cdot y^{-1}}{\cancel{2}x^{\circ}} \quad x^{0-2} = x^{-2} = \frac{1}{x^2}$$

$$= \frac{2 \cdot 1}{x^2y} = \frac{2}{x^2y}$$

# POP QUIZ





## Beat the Basics 5

Only 3 weeks left in Quarter to make up  
mastery in unit 4 & 5

**CHECK JUPITER GRADES**

**Make up Mastery Points**

# Recap

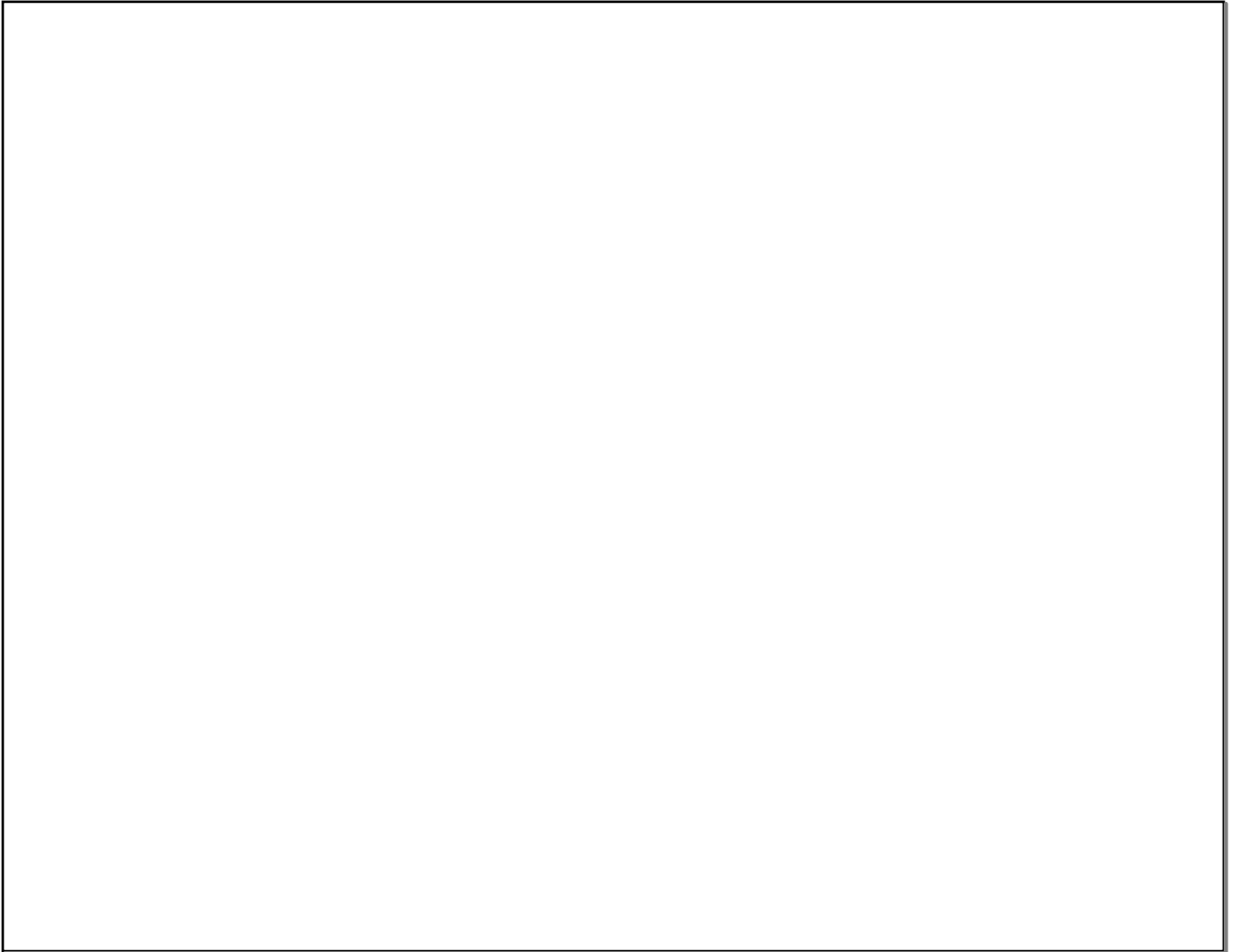
Key Points

Due Next Time:

HW 6.1

Next Class:

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Swap and Grade

$$1) -6a^7$$

$$2) 2n$$

$$3. 125x^6$$

$$4. 16z^2$$

$$5. \frac{100}{w^{10}}$$

$$6. (3 \text{ points})$$

$$-9x^2y^4$$