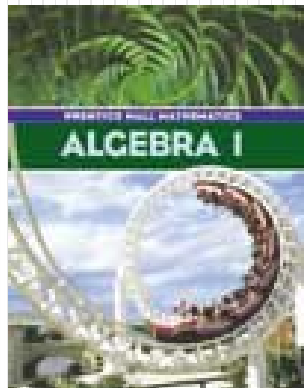
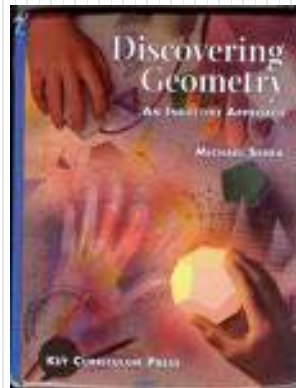


Mr. Northcutt's Math Classes Class Presentation

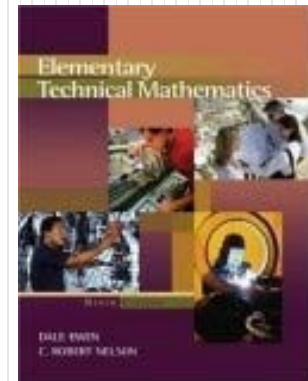
Monday, October 27, 2008 (37)



Math 1



Math 2



Applied Math

Math 1 – Daily Summary

- **Announcements**

- Begin “Solving Inequalities” Today

- **Class Objectives**

- Complete Chapter 2 Test (as needed)
- Finish HW Check (2-4, 2-5 #1, 2-5 #2, 2-6, Chapter Test)
- Test Summary
 - Areas for Improvement
- Graphing Inequalities

- **Assignment**

- Lesson 3-1: 1-37 ODD (These will go quickly!)

Areas for Improvement

- **Solving Equations**

- Negative Signs (keeping track of them)
- Distributive Property (ALL terms)
- Undo Operations
 - Number First (like $4-2x = -8$)
 - Fractional Coefficient (like $\frac{1}{4}x-2 = 3$)
- Combining Like Terms (Do it **FIRST!**)
- Arithmetic ($48/3 \neq 12 \frac{2}{3}$, $49+5 \neq 44$, $3+3 \neq 9$)
- Word Problems (On-going Focus Area!)
- Formulas (On-going Focus Area!)

$$\frac{3}{5}x = \frac{3x}{5}$$

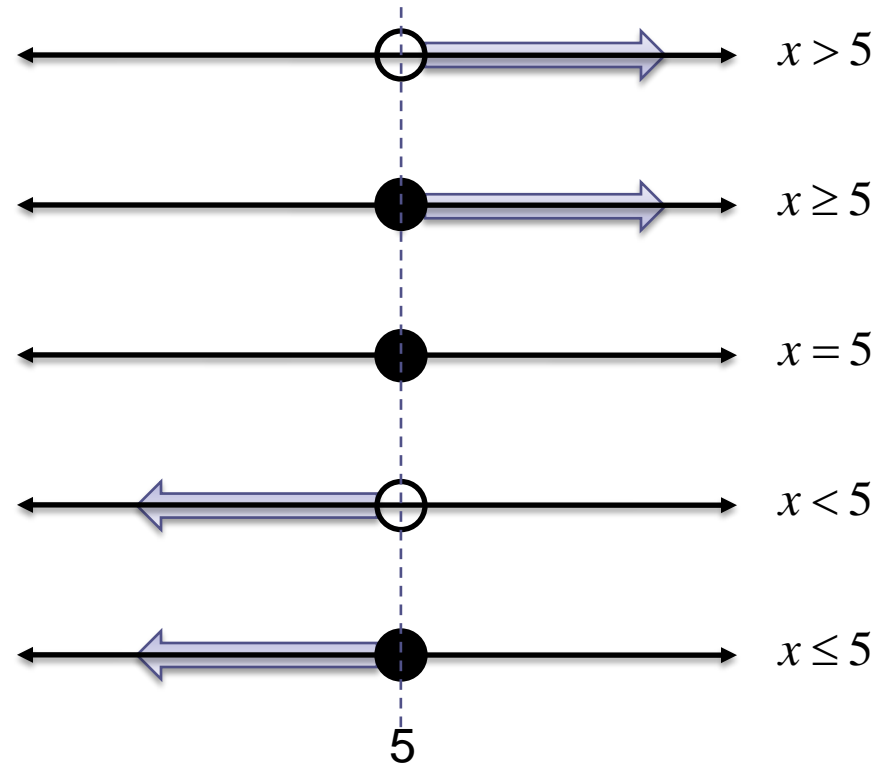
Mult.
Div.

Inequalities Signs & Graphs

- Inequality Signs

$>$	Greater Than
\geq	Greater Than or Equal To
$=$	Equal To
$<$	Less Than
\leq	Less Than or Equal To

- Graphs



Solution of an Inequality

- Any number x is a solution of an inequality if it makes the inequality true.

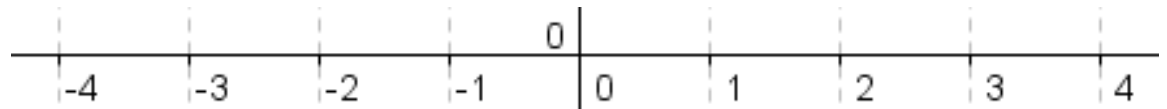
PRACTICE: Is the value a solution for the Inequality?

Inequality	-3	2	5
$x \geq 4$			
$2 > d$			
$x \geq -2.5$			

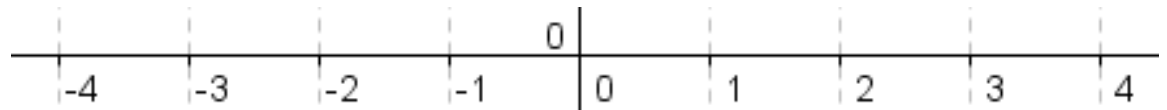
Practice (Graph from Inequality)

- Graph the following Inequalities.

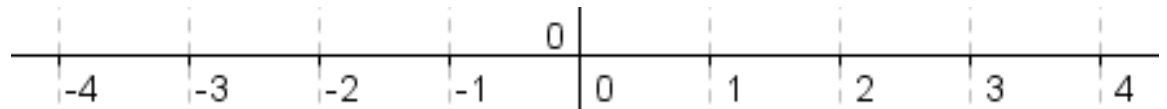
1. $x \geq 1$



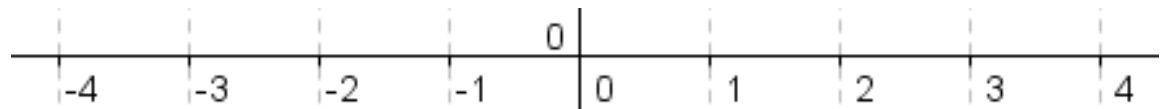
2. $x < -1$



3. $x = 2.5$



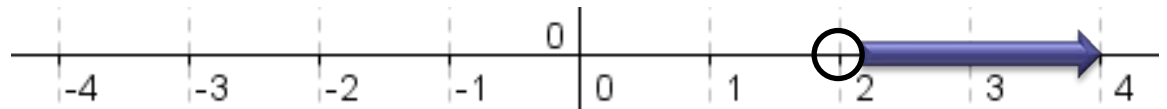
4. $x > 0$



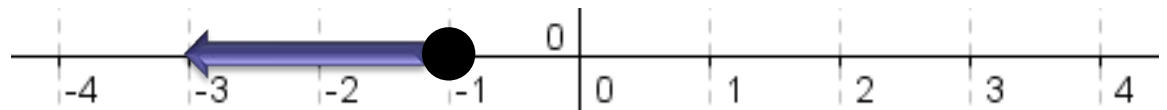
Practice (Inequality from Graph)

- Write the Inequality from the Graph.

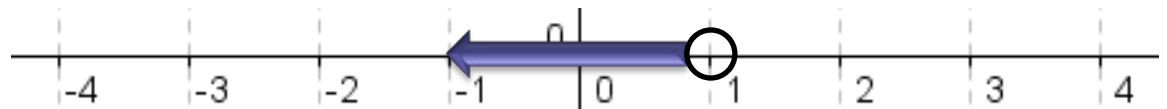
1.



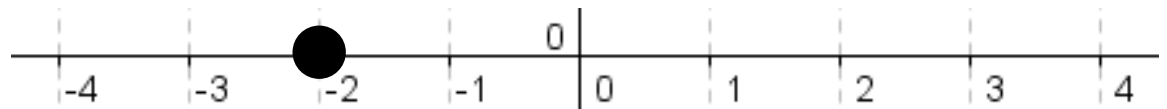
2.



3.



4.



Practice (Inequality from Words)

- Define a Variable and write an Inequality to model.
 1. In many states, you must be at least 16 years old to obtain a driver's license.
 2. Fewer than 350 students attended the concert last night.

Math 2 – Daily Summary

- **Announcements**

- Begin 2 Week Algebra Review Tomorrow
 - Solving Linear Equations and Inequalities
 - Solving Equations with Absolute Value
 - Graphing Linear Equations
 - Monomials and Polynomials (Add, Subtract, Multiply & Divide)

- **Class Objectives**

- **Chapter 4 Test**
- HW Check (at my desk after you complete test)
 - Lesson 4-8 (from Friday)

- **Assignment**

- No HW

Applied Math – Daily Summary

- **Announcements**

- Cover Chapters 5 & 6 as a Unit
- Project at Completion of the Unit

- **Class Objectives**

- Review Order of Operations & Evaluating Expressions
- Review Simplifying Algebraic Expressions
 - Terms and Coefficients
 - Distributive Property (removing parentheses)
 - “Like Terms”

- **Assignment** (*Separate Paper - Show All Work - Collect*)

- **Lesson 5.1:** 1, 9, 19, 26, 30, 37, 42
- **Lesson 5.2:** 19, 20, 31, 36, 39, 46, 56, 63, 72, 75

Core Mathematical Principles

Rule	Property
$a + b = b + a$	Commutative Property +
$ab = ba$	Commutative Property x
$(a + b) + c = a + (b + c)$	Associative Property +
$(ab)c = a(bc)$	Associative Property x
$a(b + c) = ab + ac$, or $(b + c)a = ba + ca$	Distributive Property of x over +
$a + 0 = a$	Additive Identity
$a + (-a) = 0$	Additive Inverse
$a \cdot 0 = 0$	Multiplicative Property of 0
$a \cdot 1 = a$	Multiplicative Identity
$a \cdot \frac{1}{a} = 1$	Multiplicative Inverse

+

G
E
M
D
A
S

Terms, Coefficient & Degree

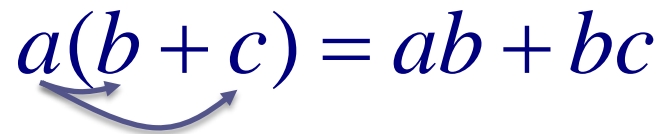
- **TERM:** Single number or product of a number and one or more variables raised to a power.
- **COEFFICIENT:** The numerical factor of a term.
- **DEGREE OF A TERM:** The sum of the powers of the variables in a term.
- Terms in an **ALGEBRAIC EXPRESSION** are separated by plus (+) and minus (-) signs.

$$2x - 4xy^2 + 3xy - 6$$

- How many terms are in the algebraic expression?
- Identify the coefficients of each term.
- Identify the degree of each term.

Distributive Property - Parentheses

- The Distributive Property can be applied to remove parentheses when a number, variable or product proceeds the parentheses.

$$a(b + c) = ab + bc$$
A blue curved arrow starts under the 'a' and points to the 'b' in the parentheses. Another blue curved arrow starts under the 'a' and points to the 'c' in the parentheses.

- **PRACTICE**

$$4 \cdot (3x + 9y)$$

$$-(x + 4)$$

$$-3x(2x - 3)$$

“Like Terms” – Simplifying Expressions

- **LIKE TERMS:** Terms with the same variables with exactly the same exponents.

$$3xy^2 \quad -2xy^2$$

“Like Terms”

$$3xy^2 \quad -2x^2y$$

NOT “Like Terms” – WHY?

- Like Terms can be **COMBINED** in expressions by adding the like term’s coefficients (“*combining like terms*”).

$$\begin{aligned} 2x + 3x &= (2 + 3)x \\ &= 5x \end{aligned}$$

$$\begin{aligned} (7 - 2x) + (5x) &= 7 - 2x + 5x \\ &= 3x + 7 \end{aligned}$$

Practice – Simplifying Expressions

1. $13x^2 + 14xy + 6y^2 + x^2 - 3y^2$

2. $(5y + 7) - (y + 2)$

3. $4(2 - 3n^3) - 2(5 - 3n^3)$