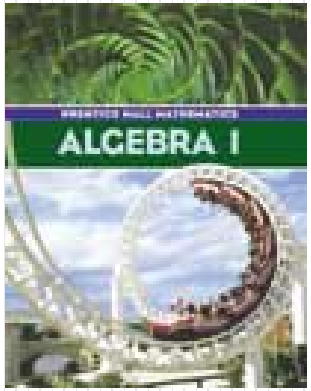
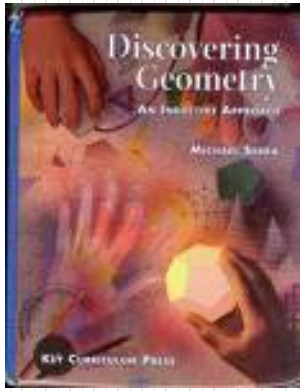
Mr. Northcutt's Math Classes
Class Presentation

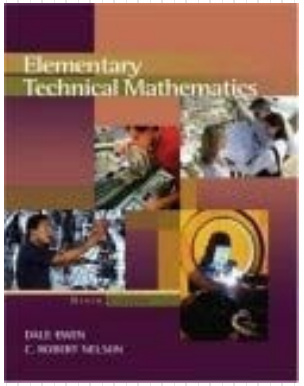
Thursday, October 30, 2008 (40)



Math 1



Math 2



Applied Math

Math 1 – Daily Summary

- **Announcements**
  - Chapter 3 Test on Wednesday
    - Sample Test Available Monday
  - 1st Quarter Ends on 11/7
- **Class Objectives**
  - Solving Inequalities with Multiplication & Division
    - Be very careful…there is a twist!
- **Assignment**
  - **Lesson 3-3**: 1-29 ODD, 30

Investigation: Multiplying Inequalities

- **Let's see what happens when we multiply both sides of an inequality. Complete the table…**

$4 > 1$ 

Left Side	Inequality	Right Side
4•3	>	1•3
4•2		1•2
4•1		1•1
4•0		1•0
4•-1		1•-1
4•-2		1•-2
4•-3		1•-3

Multiplying/Dividing Inequalities

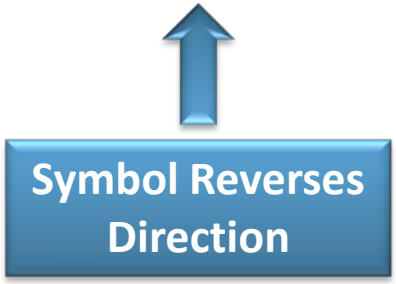
- **When you multiply or divide each side of an inequality by a negative number, the direction of the inequality symbol reverses.**

$$-7b > 42$$

Divide both sides by -7

$$\frac{-7b}{-7} > \frac{42}{-7}$$

$$b < -6$$



Another Example

- **When you multiply or divide each side of an inequality by a negative number, the direction of the inequality symbol reverses.**

$$-\frac{5}{7}x > -5$$

Multiply both sides by -7

$$(-7)\cdot -\frac{5}{7}x < -5\cdot(-7)$$

$$\frac{5x}{5} < \frac{35}{5}$$

Divide both sides by 5

$$x < 7$$

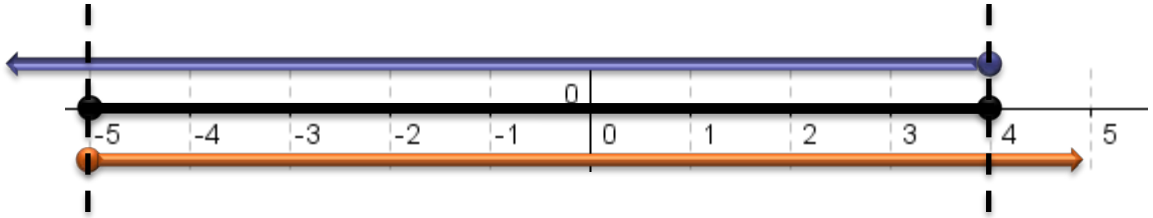
Math 2 – Daily Summary

- **Announcements**
  - Algebra Review Test on Tuesday
    - Sample Test Available Tomorrow
  - 1st Quarter Ends on 11/7
- **Class Objectives**
  - Solving Compound Inequalities & Absolute Value Problems
- **Assignment**
  - Compound Inequalities & Absolute Value Worksheet

Compound Inequality (AND)

- **Two inequalities joined by AND or OR.**

Example: $x \geq -5$ AND $x \leq 4$



$$-5 \leq x \leq 4$$

Solving Compound Inequalities (AND)

- **Isolate variable between the inequality signs.**

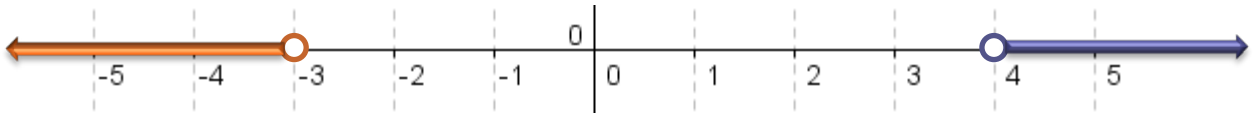
$$-3 < 2x - 1 < 7$$

Compound Inequality (OR)

- **With OR either inequality can be true and the statement is true.**

$$x < -3 \quad \text{OR} \quad x > 4$$

Example:

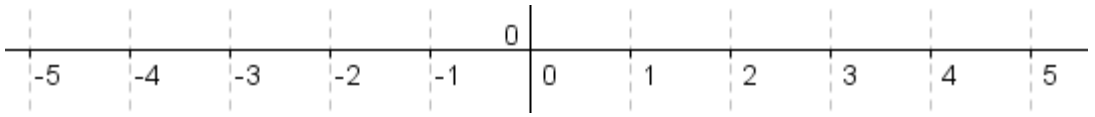


- **For compound inequalities joined by OR, you <u>must solve each inequality separately</u>!**

Solving Compound Inequalities (OR)

- **Solve and graph the inequality** 4v+3<-5 **and** -2v+7<1**.**

$$4v + 3 < -5 \qquad -2v + 7 < 1$$



Solving Absolute Value Equations

- **Review Absolute Value**

1. Isolate |…|
2. Solve for both + and – solutions.

$$|x| = 3$$

$$x = 3 \qquad x = -3$$

Has 2 Solutions!

$$|2p + 5| + 6 = 11$$

Solving Absolute Value Inequalities

- **These can be a little tricky!!**

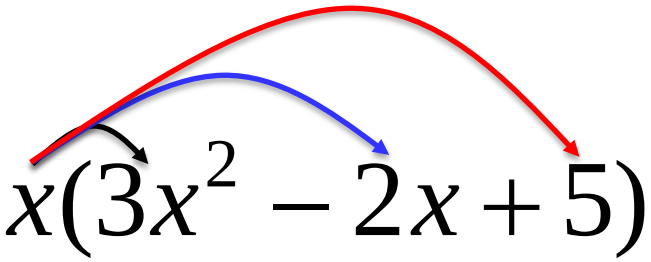
OR $|v-3| \geq 4$ $|y-2| \leq 1$ AND

Applied Math – Daily Summary

- **Announcements**
  - Polynomial Test on Tuesday
    - Sample Test Available Tomorrow
  - 1st Quarter Ends on 11/7
- **Class Objectives**
  - Multiplying Polynomials
- **Assignment** (***Separate Paper - Show All Work - Collect***)
  - **Lesson 5-5**: 5-65 by 5

Multiplying Polynomials

- **Multiplying Polynomials is the "ultimate" application of the Distributive Property.**



$$x(3x^2 - 2x + 5)$$

$$3x^3 - 2x^2 + 5x$$

Multiplying Polynomials

Distributive Property

$$a(b+c+\ldots)=ab+ac+a\ldots$$

- **Let's try a bit more challenging problem…**

$$(x^2-2)(3x^2-2x+3)$$

Multiplying Polynomials

Distributive Property

$$a(b+c+\ldots)=ab+ac+a\ldots$$

- **Let's make it easier…works for <u>ANY POLYNOMIALS</u>!**

$$(x^2-2)(3x^2-2x+3)$$