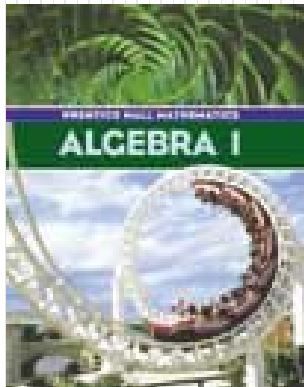
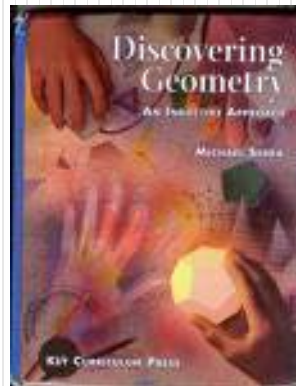


# Mr. Northcutt's Math Classes Class Presentation

November 6, 2008 (45)



Math 1



Math 2



Applied Math



# Math 1 – Daily Summary

- **Announcements**

- **1<sup>st</sup> Quarter Ends Tomorrow**
  - **All Past Due Tests or HW Must be Completed**
- **Begin Chapter 4 – Solving and Applying Proportions**

- **Class Objectives**

- **Test Summary and Review**
- **Ratio & Proportion**

- **Assignment**

- **Lesson 4-1: 2-30 by 2**



# Test Summary

- **Test Scores (68 Total Points)**

- Average = 55.5 (**82%**)
- High = 68 (**100%**)
- Low = 22 (**32%**)

**Nice Job!!!**

- **Areas for Development**

- Negative Signs “Disappearing”
- Arithmetic (Add, Subtract, Multiply & Divide)
- Multiply/Divide by Negative – Reverse Inequality
- What is means to be a “solution”



# Ratio - Definition

- **Ratio**

- Comparison of two numbers by division.

$$a : b \qquad \frac{a}{b}$$

“a is to b”



# Rate & Unit Rate - Definitions

- **Values of a and b have “units” (miles, hours, feet...)**
  - If units of a and b are different then the ratio is a Rate

$$\frac{a}{b} \Rightarrow \frac{\text{miles}}{\text{hour}} \quad \frac{\text{pounds}}{\text{ft}^2} \quad \frac{\text{degrees}}{\text{second}}$$

- **Unit Rate**
  - A rate with a denominator of 1.

$$\frac{60 \text{ miles}}{1 \text{ hour}} \quad \frac{\$.67}{1 \text{ oz}}$$



# Finding a Unit Rate

- Find the Unit Rate for each size of Orange Juice. Which size is the best deal?

Price	Volume/Size	Unit Rate
\$1.40	16 oz	
\$2.75	32 oz	
\$3.90	48 oz	



# Conversion Between Units

- **Unit/Dimensional Analysis**

- The process of converting from one set of unit to another.

- **Convert 7 Hours to Minutes**

$$\frac{7 \cancel{\text{hr}}}{1} \times \frac{60 \text{ min}}{1 \cancel{\text{hr}}} = \underline{\hspace{2cm}} \text{ min}$$

Conversion Factor  
= 1



# Converting Between Rates

- A cheetah ran 300 feet in 2.92 seconds. What was the cheetah's speed in miles per hour?

<del>300 ft</del>	<b>1 mile</b>	<del>60 sec</del>	<del>60 min</del>	<b>miles</b>
<b>2.92 sec</b>	<del>5280 ft</del>	<del>1 min</del>	<b>1 hr</b>	<b>hr</b>





# Proportions

- **Proportion**

- An equation that states 2 ratios are equal.

$$\frac{a}{b} = \frac{c}{d} \qquad a : b = c : d$$

“a is to b as c is to d”



# Proportions with Variables

- How would you solve the following proportion?

$$\frac{t}{9} = \frac{5}{6}$$

- These are just like “equations with fractions”.
- **Cross Products** (just another way to solve)

$$\frac{t}{9} \times \frac{5}{6}$$

$$6t = 45$$

Why does  
this work?



# Math 2 – Daily Summary

- **Announcements**

- **1<sup>st</sup> Quarter Ends Tomorrow**
  - **All Past Due Tests or HW Must be Completed**

- **Class Objectives**

- Properties of Isosceles (and Equilateral) Triangles

- **Assignment**

- **Lesson 5.2: 1-7, 9-14, 22**



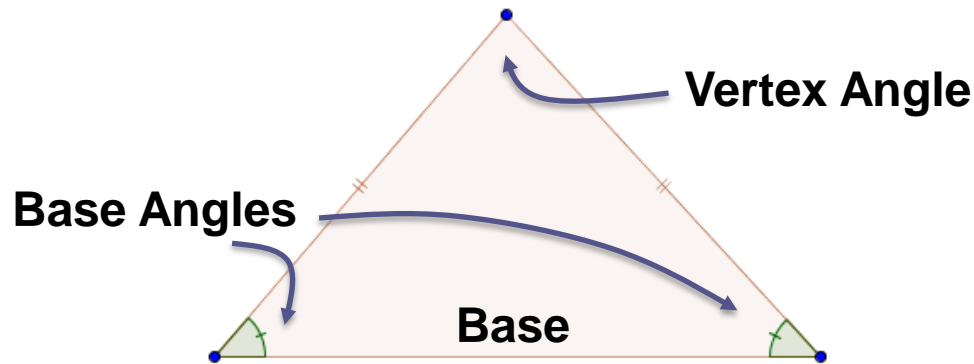
# Conjectures

- **Isosceles Triangle Conjecture**

- If a triangle is isosceles, then it has two congruent angles.

- **Converse...**

- If a triangle has two congruent angles, then it is isosceles.



- **Equilateral Triangle Conjecture**

- An equilateral triangle is equiangular, and conversely, an equiangular triangle is equilateral

# Triangle Congruence



- **Talk about congruent triangles now...out of prep time 😊**



# Applied Math – Daily Summary

- **Announcements**

- **1<sup>st</sup> Quarter Ends Tomorrow**
  - **All Past Due Tests or HW Must be Completed**

- **Class Objectives**

- More...Solving Linear Equations

- **Assignment**

- **Lesson 6.4: 4-40 by 4**



# Equations with Fractions

- **Out of prep time...let's try these☺**

$$\frac{3}{4} + \frac{x}{6} = \frac{13}{12}$$

$$\frac{2}{3}x + \frac{3}{4}(36 - 2x) = 32$$

$$\frac{2x+1}{3} - \frac{x-6}{4} = \frac{2x+4}{8} + 2$$

$$\frac{5}{x} - 2 = 3$$