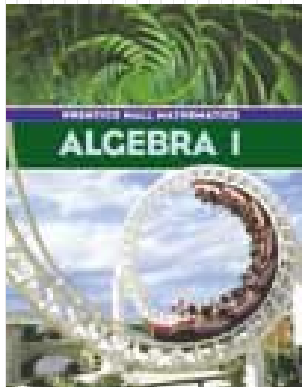
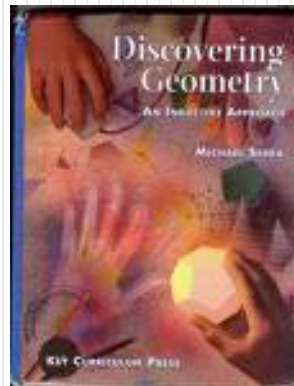


Mr. Northcutt's Math Classes Class Presentation

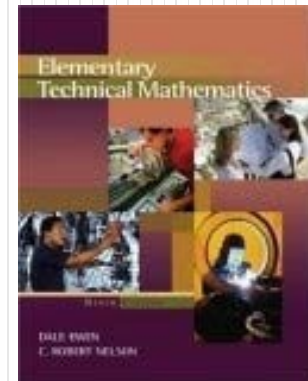
April 21, 2009 (142)



Math 1



Math 2



Applied Math



Math 1 – Daily Summary

- **Announcements**
 - Begin Chapter 10 - Quadratic Equations Tomorrow
 - Early Release Tomorrow
- **Class Objectives – What you should learn today?**
 - TEST: Chapter 7
- **Assignment**
 - NO HW



Math 2 – Daily Summary

- **Announcements**

- **QUIZ: Sections 12.1 thru 12.3 on Thursday**
- Early Release tomorrow

- **Class Objectives – What you should learn today?**

- Shortcuts for determining Similar Triangles
- Use Proportions to find measurements of similar figures

- **Assignment**

- **Lesson 12.3: 1-14, 20**
- **Scale Drawing** by Wednesday (Tomorrow)

**1st Warning: Today's
Lesson is Challenging!**



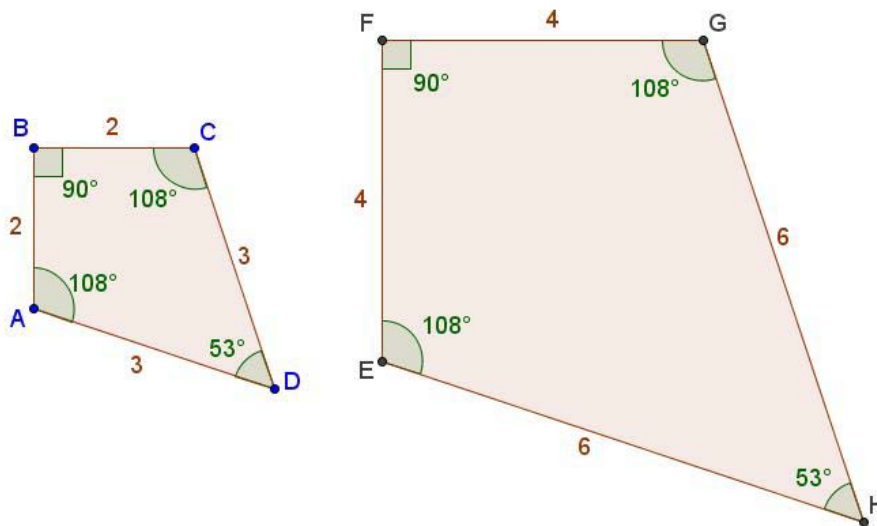
Similar Polygons

• Similar Polygons

Two polygons are similar polygons **if and only if**

- i. The corresponding angles are congruent, and
- ii. The corresponding sides are proportional.

$$ABCD \sim EFGH$$



$$\angle A \cong \angle E$$

$$\angle B \cong \angle F$$

$$\angle C \cong \angle G$$

$$\angle D \cong \angle H$$

Angles

Sides

$$\frac{AB}{EF} = \frac{BC}{FG} = \frac{CD}{GH} = \frac{DA}{HE} = \text{Constant}$$

Let's Look More Closely at TRIANGLES



- When are two triangles similar?
- Checking ALL angles and ALL sides is a lot of work...are there shortcuts (like we had with Triangle Congruence)?
 - SSS
 - SAS
 - AAS
 - ASA
 - *Did Not Work: ASS, AAA*
- In your Notebooks:
 - First try SSS, AA(A)
 - That leaves SAS and SSA

For congruence, we tried
6 combinations.

- Sides Proportional
- Angles Congruent



Similar **TRIANGLE** Conjectures

- **SSS Similarity Conjecture**

- If the three sides of one triangle are proportional to the three sides of another triangle, then the two triangles are similar.

- **AA Similarity Conjecture**

- If two angles of one triangle are congruent to two angles of another triangle then the two triangles are similar.

- **SAS Similarity Conjecture**

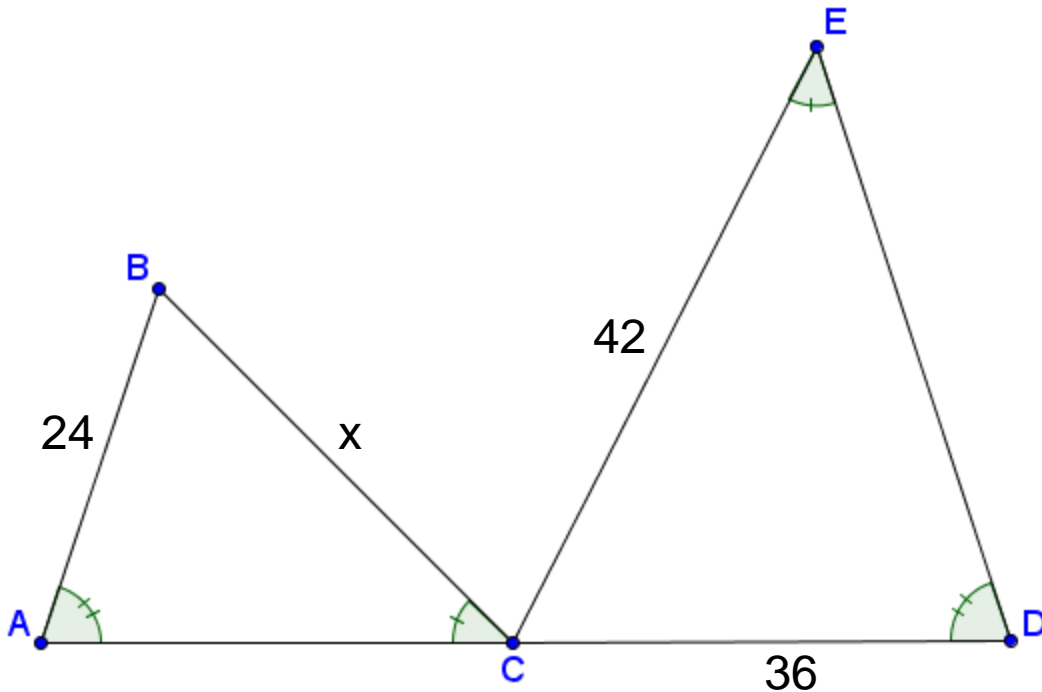
- If two sides of one triangle are proportional to two sides of another triangle and the included angles are congruent, then the two triangles are similar.

Example

- Are the triangles similar? WHY?
- Which angles and sides are corresponding?
- How would you solve for missing side?



- **Find x.**



2nd WARNING!



- **Today's Lesson and Exercises are Challenging...**
- **They draw on a lot of the information from past lessons:**
 - Proportionality
 - Pythagorean Theorem
 - Parallel Lines and Transversals
 - Inscribed Angles and Intercepted Arcs
 - Definition of a Trapezoid

Don't Give Up Too Easily!



Applied Math – Daily Summary

- **Announcements**

- **QUIZ: Chart/Graphs Basics (15.1-3 plus Excel) FRIDAY.**
- Early Release Tomorrow

- **Class Objectives – What you should learn today!**

- Work with Bar Graphs
 - Reading, Understanding and Interpreting
 - Creating a Bar Graph from Data (MS Excel)

- **Assignment**

- **Section 15.1: 11-20**
- **Using MS Excel (use file posted on Website):**
 - Bar Graph of Data in Spreadsheet (Earnings & Unemployment Rate)
 - 15.1 #24