

Mr. Northcutt's Math Classes Class Presentation

April 28, 2009 (147)



Math 1



Math 2



Applied Math



Math 1 – Daily Summary

- **Announcements**
 - **QUIZ: Sections 10-1 thru 10-3 on Thursday**
- **Class Objectives – What you should learn today?**
 - Review: Working with Fractions
 - Addition & Subtraction
 - Multiplication & Division
- **Assignment**
 - **Worksheet: Fractions “Bootcamp”**



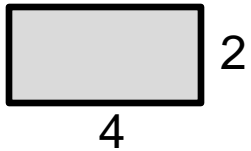
Math 2 – Daily Summary

- **Announcements**
 - **TEST: Chapter 12 (Similarity) on Thursday**
- **Class Objectives – What you should learn today?**
 - Proportion with Area and Volume
 - Finding area of similar polygons
 - Finding volume of similar polyhedrons
- **Assignment**
 - **Lesson 12-6: 1-18, 20**

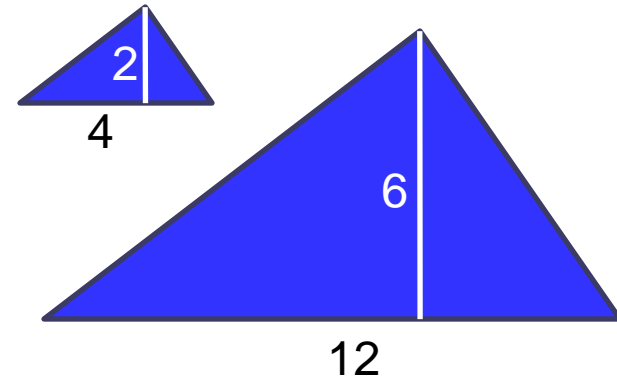
Investigation - Area of Similar Figures



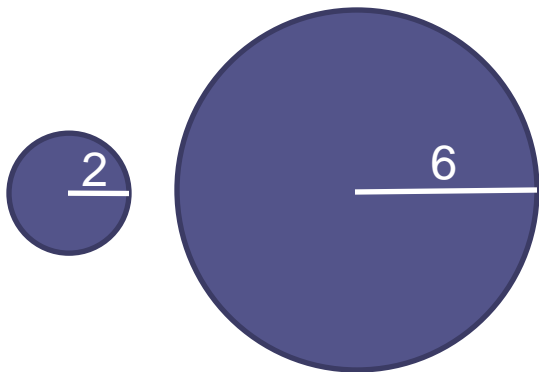
- Find the area of the similar polygons and circles.



$$\frac{A_{\text{LrgRect}}}{A_{\text{SmRect}}} =$$



$$\frac{A_{\text{LrgTri}}}{A_{\text{SmTri}}} =$$

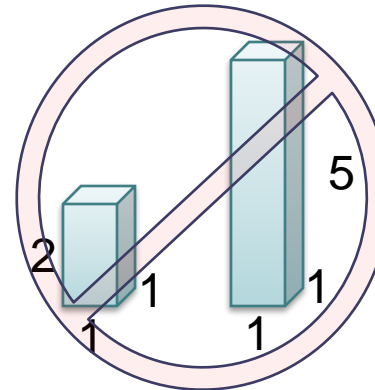
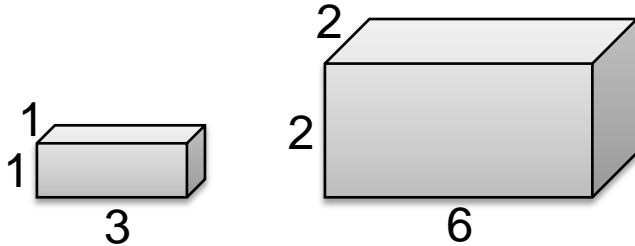


$$\frac{A_{\text{LrgCir}}}{A_{\text{SmCir}}} =$$

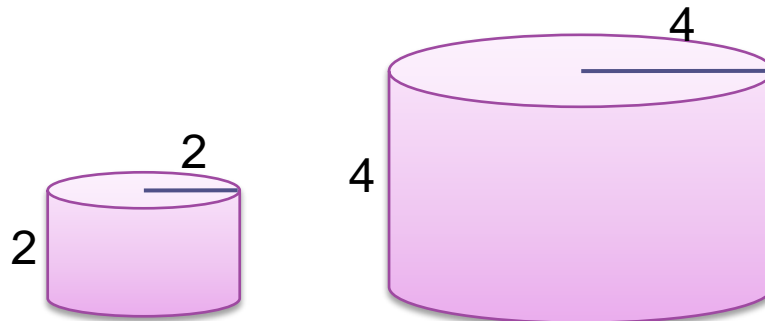


Similar Solids/Polyhedrons

- **Two solids are similar if all of their corresponding faces are similar and the lengths of their corresponding edges are proportional.**



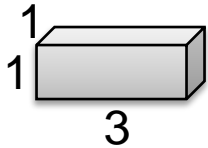
- **Two right cylinders (or right cones) are similar if the ratio of their radii equals the ratio of their corresponding heights.**



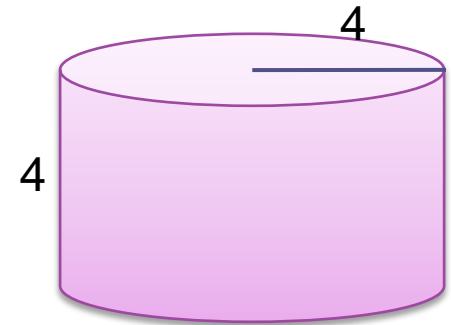
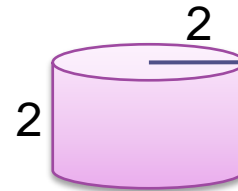
Investigation - Volume Similar Shapes



- Find the volume of the similar shapes.



$$\frac{V_{\text{Small}}}{V_{\text{Large}}} =$$



$$\frac{V_{\text{Small}}}{V_{\text{Large}}} =$$



Proportional Area & Volume

- **Proportional Area Conjecture (“SQUARED”)**
 - If two similar polygons (or circles) have lengths of corresponding sides (or radii) in the ratio of m/n , then their areas are in the ration $(m/n)^2$.

- **Proportional Volume Conjecture (“CUBED”)**
 - If two similar solids have corresponding dimensions in the ratio of m/n , then their volumes are in the ration $(m/n)^3$.

Example - Art: "Jake & Devlin Talking"



Mr. Northcutt made a scale model of Jake & Devlin talking in class. The model is made of steel and weighs 30 pounds. He plans to make a large scale statue of the two talking which is 5 times as large in each dimension (also made of steel). How much will the statue weigh?



Applied Math – Daily Summary

- **Announcements**
 - None
- **Class Objectives – What you should learn today!**
 - Grouped Data
- **Assignment**
 - **Section 15.7:** MS Excel: Data Grouping