

Advanced Geometry – Test: Unit 7 Outline
250 Points
Wednesday, December 21, 2011

I. Terminology

- Be able to identify the net used to create a given 3D figure
 - » Platonic Solids, Cone, Cylinder, Pyramid, etc
- Know the names / nets of the Platonic Solids we constructed in class.

II. Surface Area

- Be able to calculate the surface area of any of the following (trig ratios involved):
 - » Rectangular Prism, Trapezoidal Prism, Triangular Prism, etc
 - » Cylinder, Cone, Sphere
 - » Pyramid (rectangular base AND regular polygon bases)
 - » Composite Figures (a mixture of types)
 - » Swimming Pool Problem
- Be able to use surface area to work a real-world problem
(example: how many gallons of paint would you have to buy)

III. Volume

- Be able to calculate the volume of any of the following (trig ratios involved):
 - » Rectangular Prism, Trapezoidal Prism, Triangular Prism, etc
 - » Pyramid
 - » Cylinder, Cone, Sphere
 - » Oblique Figures (slanted... you need to find the height... etc)
 - » Composite Figures (a mixture of types...)
 - » Swimming Pool Problem
 - » Sewer Pipe Problem (water is one foot deep... how much volume, etc)
 - » "Frustrum" (Cone with top point removed)
 - » Meatball Problem
- Be able to use volume to work a real-world problem
(Example: What time would the pool be full?)

~~~~~ **NOTES** ~~~~~

- This test will be worth 250 points.
- This is the first "major grade" for the 4th grade period. ***Prepare accordingly!!!***
- The fourth grade period can make or break your grade.  
In the past, I have seen students ruin their grades in the last few weeks;  
prepare thoroughly, and don't let this happen to you!
- Being able to convert units is important; **MAKE SURE YOU UNDERSTAND THE FACTOR LABELING PROCESS (HOW TO CONVERT FROM VARIOUS UNITS).**
- **You must know any relevant surface area and volume formulas.**  
They will not be provided to you on the exam.