Math 4: Geometry

Syllabus

Overview

This fourth semester math course will cover the following geometric concepts:

commonly used geometric terms, angles, perpendicular and parallel lines, rays and transversals, measuring lines and segments, sides and vertices of angles, acute, obtuse, and right angles, parallel and skew lines, Pythagorean Theorem, distance formula, calculating perimeter, volume and area of various geometric figures including trapezoids, pyramids, cones, and spheres, proportional ratios, arcs, chords, circumference, tangents, angle measurement, conditional statements, and trigonometric functions.

Objectives

This math class is designed to give the student ample opportunity to grasp basic concepts of Geometry through the completion of the required lessons and tasks set throughout the coursework as well as to demonstrate understanding of these concepts through the individual lessons and their assessments.

Individual Lessons

Note: All of the lessons are within the A+LS software located on each student's workstation. Each lesson comes equipped with three sections: Study (notes and instruction of the lesson material), Practice (a pretest that gives immediate feedback upon student responses), and Test (the formal assessment of lesson material). For information on lesson correlation to AZ state standards, please refer to the following web address (you will need Adobe Acrobat Reader to view this page): http://www.amered.com/correlations/arizona.pdf.

This fourth semester math course covers the following lessons:

Foundations of Geometry; Geometric Concepts; Geometric Measurement; Points, Lines and Planes; Segments Rays and Angles; Angles; Transversals; Parallelism; Triangles; Congruent Triangles; Triangles Inside and Outside; Right Triangles 1; Right Triangles 2; Quadrilaterals; Parallelograms; Special Parallelograms; Trapezoids; Areas of Polygons; Conditional Statements; Similar Polygons; More About Polygons; Area Revisited; Solids 1; Solids 2; Circles; Circles & Angles; Circles, Arcs, & Sectors; Trigonometric Functions; and a Comprehensive Review.

Tests & Measurements

Scoring is based upon successful completion of all three sections of each individual lesson (Study, Practice, and Test) with a score of at least 80% on the Test and/or the discretion of the classroom teacher. 90% of the final grade is the average of coursework throughout while the remaining 10% is based upon the score on the Comprehensive Review.