

# Euclidean geometry



**ASSIGN  
BUSTER**

Solve problems involving linear functions. 2. Develop algebraic expressions based on word problems, including those that require the use of parentheses, and evaluate the algebraic expression. 3. Recognize and create equivalent algebraic expressions (e. G. ,  $2(a+3) = 2a+6$ ). 4. Solve systems of linear equations and inequalities (I. E. , equations with no quadratic or higher terms) in two or three variables both graphically and algebraically. 5. Apply algebraic techniques to solve a variety of problems (e. G. , rate problems, work problems, geometrical problems). 6. Classify (as quadrilaterals, planar, solid, three-sided, etc. ) familiar plane and solid objects (e. G. , squares, rectangles, cubes, circles, spheres, rhombuses, trapezoids). 7. Define the concepts of length, area, perimeter, parallelism, circumference, volume, and surface area and calculate these when appropriate. 8. Identify the properties of angles in basic geometric figures. . Construct formal, logical arguments, proofs, and constructions. 10. Determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids. 11 . State the Pythagorean Theorem and its converse. 12. Solve problems using the Pythagorean Theorem and its converse, and the properties of complementary, supplementary, vertical, and exterior angles. 13. Define the properties of complementary, supplementary, vertical, and exterior angles. . Compute the mean, median, mode, and range of a collection of data. 15. Identify potential sources and effects of bias in a given statistical analysis. 16. Calculate probabilities using complementary, mutually exclusive, dependent, and independent events. 17. Construct logical arguments and proofs based on the congruence, similarity, or lack thereof, of two figures. 18. Compute

simple combinations and permutations using fundamental counting principles.