

Accelerated Math 7

Text:	Saxon, J.H. (1990). <i>Algebra ½ 2nd Edition</i> , Saxon Publishers: Norman, OK
Supplemental Materials:	Looking at Geometry, AIMS Education Foundation Geoboards Powers and Scientific Notation Bingo
Course Description:	Advanced Math 7 is a course designed to challenge students through instruction and design based on upper-level mathematics concepts and skills. Students will be introduced and master the basic operations of fractions, mixed numbers, decimals, and signed numbers while working with fractional parts of a number, percent, proportion, and ratio word problems, powers, roots, and exponents. Students will use critical thinking skills to write and solve algebraic problems, algebraic equations and solve perimeter, area, volume, and surface area problems. Students will be introduced to higher level math components including probability and statistics skills, scientific notation and graphing. Students will be challenged to use their critical thinking skills while working with higher education materials.
Methods of Evaluation:	Students can be evaluated through tests, quizzes, daily practice sets, homework problem sets, lab grades quarterly exams, and/or any other form of evaluation instrument the instructor finds applicable to the course.
Pace of Instruction:	First Semester: Lesson 1 - 80 Second Semester: Lesson 81 - 137
Course Objectives:	At the end of this course students should be able to: <ol style="list-style-type: none"> 1. Perform operations with fractions, mixed numbers, decimals, and signed numbers 2. Solve fractional part word problems 3. Solve percent word problems 4. Use ratios and proportions to solve word problems 5. Work with powers, roots, and exponents 6. Interpret the numbers and variables from a word written algebraic problem 7. Solve algebraic equations. 8. Use geometric formulas 9. Use probability and statistics to solve problems 10. Correctly change a number to scientific notation 11. Multiply scientific numbers 12. Graph equalities and inequalities 13. Classifying lines, angles, and polygons

14. Find perimeter of polygons
15. Add, subtract, multiply, and divide decimal numbers
16. Use divisibility rules 2,3,4,5,6,7,8,9,10, and 12 5(take this 5 out).
17. Use problem solving techniques
18. Add, subtract, multiply, and divide fractional numbers
19. Find area of a rectangle and triangle
20. Know measurement equivalencies
21. Find mode, median, and mean
22. Interpret information on a graph
23. Know fraction/mixed number equivalencies
24. Find LCM
25. Use order of operations
26. Add, subtract, multiply, and divide mixed numbers
27. Solve two-step problems
28. Use ratios and proportions to solve problems
29. Know decimal/fraction/percent equivalencies
30. Find complex average
32. Work with exponents and roots
33. Find volume of rectangular prisms
34. Find surface area
36. Write numbers in scientific notation
37. Use symbols of inclusion
38. Circumference and pi
39. Solve percent equations
40. Find absolute value
- 41 Add, subtract, multiply and divide with signed numbers
42. Graph inequalities
43. Find volume of a right circular cylinder
44. Multiplication with scientific notation
45. Using ratio boxes for problem solving
46. Find powers and roots of fractions
47. Solve percent problems greater than one hundred
48. Write and solve algebraic problems with opposites
49. Solve signed number problems using order of operations
50. Solve equations with negative coefficients
51. Interpret and solve algebraic phrases
52. Find surface area of a right solid
53. Solve number word problems
54. Find roots by cut and try
55. Adding like algebraic terms
56. Solve algebraic problems with terms on both sides
57. Solve signed numbers with exponents
58. Solve negative roots and exponents
59. Work with Roman numerals
60. Work with simple and compound interest
61. Use Pythagorean theorem