

Algebra I Honors

Unit 12: Radicals and Geometry

Essential Understandings	<ul style="list-style-type: none"> ▪ Understanding radicals and geometry is an important skill of future success in mathematics. Radical functions will focus on square root functions.
Essential Questions	<ul style="list-style-type: none"> ▪ How do you evaluate radicals (square roots, cube roots, etc.)? ▪ How do you simplify radicals? ▪ How do you add, subtract, multiply, and divide radicals? ▪ How do you solve radical equations? ▪ How do you use the Pythagorean Theorem? ▪ How do you use the distance formula? ▪ How do you use the midpoint formula? ▪ How do you graph square root radical function? ▪ How do you solve square root radical function?
Essential Knowledge	<ul style="list-style-type: none"> ▪ Square roots can be simplified. ▪ Radicals can be added, subtracted, multiplied, and divided. ▪ Radical equations can be solved. ▪ Square root radical function can be graphed.
Vocabulary	<ul style="list-style-type: none"> ▪ <u>Terms:</u> <ul style="list-style-type: none"> ○ Radicals, radical equations, Pythagorean Theorem, hypotenuse, legs of a right triangle, distance formula, midpoint, midpoint formula. ○ Extraneous solutions, square root functions, radical functions
Essential Skills	<ul style="list-style-type: none"> ▪ Evaluate square roots. ▪ Simplify radicals ▪ Add, subtract, multiply, and divide radicals. ▪ Solve radical equations. ▪ Use the Pythagorean Theorem. ▪ Use the distance formula. ▪ Use the midpoint formula. ▪ Graph and interpret square root radical functions using technology.
Related Maine Learning Results	<p>A. Real Numbers 1abcd C. Geometric Figures 1bcd</p>
Sample Lessons And Activities	<ul style="list-style-type: none"> ▪ Students will orally respond to questions. ▪ Students will utilize worksheets and in their notes to demonstrate individual understanding of the concepts.
Sample Classroom Assessment Methods	<ul style="list-style-type: none"> ▪ Quizzes, take-home worksheets, and tests.
Sample Resources	<ul style="list-style-type: none"> ▪ <u>Publications:</u> <ul style="list-style-type: none"> ○ Algebra 1 Textbook (Larson) ▪ <u>Other:</u> <ul style="list-style-type: none"> ○ Graphing calculators.
Technology Link	<ul style="list-style-type: none"> ▪ http://www.brunswick.k12.me.us/curriculum