

Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Algebra 2 *Chapter 8 Rational Functions	10-12	4 th	14 days
TEKS/Student Expectations		Examples/Specifications:	
<p><u>The student uses properties and attributes of functions and applies functions to problem situations. Following are performance descriptions.</u> 2A.1.B – In solving problems, the student collects data and records results, organizes the data, makes scatterplots, fits the curves to the appropriate parent function, interprets the results, and proceeds to model, predict, and make decisions and critical judgments.</p> <p><u>The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations. Following are performance descriptions.</u> 2A.2.A – The student uses tools including matrices, factoring, and properties of exponents to simplify expressions and transform and solve equations.</p> <p><u>Rational functions: knowledge and skills and performance descriptions. The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. Following are performance descriptions.</u> 2A.10.A – The student uses quotients to describe the graphs of rational functions, describes limitations on the domains and ranges, and examines asymptotic behavior. 2A.10.B – The student analyzes various representations of rational functions with respect to problem situations. 2A.10.C – For given contexts, the student determines the reasonable domain and range values of rational functions, as well as interprets and determines the reasonableness of solutions to rational equations and inequalities 2A.10.D – The student solves rational equations and inequalities using graphs, tables, and algebraic methods 2A.10.E – The student analyzes a situation modeled by a rational function, formulates an equation or inequality composed of a linear or quadratic function, and solves the problem 2A.10.F – The student uses direct and inverse variation functions as models to make predictions in problem situations. 2A.10.G – The student uses functions to model and make predictions in problems situations involving direct and inverse variation.</p> <p>B.8.D</p>		<ul style="list-style-type: none"> ✓ Student will be able to model inverse and joint variation ✓ Student will be able to multiply and divide rational expressions ✓ Student will be able to graph simple rational functions ✓ Student will be able to graph general rational functions ✓ Student will be able to add and subtract rational expressions ✓ Student will be able to solve rational equations 	

Process of Instruction/Products:	Instructional Resources/Textbook Correlations:											
Lecture using transparencies and note taking on: <ol style="list-style-type: none"> 1. Model Inverse and Joint Variation (8.1) 2. Graph Simple Rational Functions (8.2) 3. Graph General Rational Functions (8.3) 4. Multiply and Divide Rational Expressions (8.4) 5. Add and Subtract Rational Expressions (8.5) 6. Solve Rational Equations (8.6) Math Activity and student directed assignment for test review of concepts	McDougal Littell/ Larson Algebra 2 CH 8 pages 548 - 611											
Language of Instruction	Weblinks/Other Resources:											
Inverse variation constant of variation joint variation Rational function simplified form of a rational expression Complex fraction cross multiplying	www.coolmath.com											
Evaluation/External Assessment/Local Assessment:	Best Instruction Timeline:											
Daily Homework In-class work End of Unit Test 2-6 Quizzes	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Day 1</td> <td style="width: 50%;">Day 7, 8</td> </tr> <tr> <td>Day 2</td> <td>Day 9, 10</td> </tr> <tr> <td>Day 3</td> <td>Day 11, 12</td> </tr> <tr> <td>Day 4, 5</td> <td>Day 13</td> </tr> <tr> <td>Day 6</td> <td>Day 14</td> </tr> </table>		Day 1	Day 7, 8	Day 2	Day 9, 10	Day 3	Day 11, 12	Day 4, 5	Day 13	Day 6	Day 14
Day 1	Day 7, 8											
Day 2	Day 9, 10											
Day 3	Day 11, 12											
Day 4, 5	Day 13											
Day 6	Day 14											