

Curriculum Guide Algebra 1B

Unit 7: Systems of Equations and Inequalities

Biblical Worldview Essential Question:

Is your life “balanced” as a believer?

Are you a “real” Christian?

12 Lessons – 4 weeks

A1B: 1

Objectives	Methods	Resources	Assessment
The students will 1. Graph and solve systems of linear equations. 2. Solve systems of linear equations by substitution. 3. Solve linear systems using elimination. 4. Solve linear systems by multiplying first. 5. Identify the number of solutions of a linear system. 6. Solve systems of linear inequalities in two variables.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1, 2011</u>	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work

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Unit 8: Exponents and Exponential Functions

Biblical Worldview Essential Question:

Does the evidence in your life show a “relation” to Christ or the world?

12 Lessons – 4 weeks

A1B: 2, 3

Objectives	Methods	Resources	Assessment
The students will 1. Use properties of exponents involving products. 2. Use properties of exponents involving quotients. 3. Use zero and negative exponents. 4. Read and write numbers in scientific notation. 5. Write and graph exponential growth models. 6. Write and graph exponential decay models.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1, 2011</u>	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work

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Unit 9: Polynomials and Factoring

Biblical Worldview Essential Question:

What happens when you have too many “variables” in your life?

16 Lessons – 6 weeks

A1B: 3, 4, 6

Objectives	Methods	Resources	Assessment
The students will <ol style="list-style-type: none">1. Add and subtract polynomials.2. Multiply polynomials.3. Use special product patterns to multiply polynomials.4. Solve polynomial equations.5. Factor trinomials of the form $x^2 + bx + c$.6. Factor trinomials of the form $ax^2 + bx + c$.7. Factor special products.8. Factor polynomials completely.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1</u>, 2011	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work• Mid-Term Exam

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Unit 10: Quadratic Equations and Functions

Biblical Worldview Essential Question:

What does it mean to be “fearfully and wonderfully” made?

16 Lessons – 6 weeks

A1B: 4, 7

Objectives	Methods	Resources	Assessment
The students will <ol style="list-style-type: none">1. Graph simple quadratic functions.2. Graph general quadratic functions.3. Solve quadratic equations by graphing.4. Solve quadratic equations by finding square roots.5. Solve quadratic equations by completing the square.6. Solve quadratic equations by using the quadratic formula.7. Use the value of the discriminant.8. Compare linear, exponential, and quadratic models.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1</u>, 2011	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work

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Unit 11: Radical and Geometry Connections

Biblical Worldview Essential Question:

What are the “factors” of the gospel message?

10 Lessons – 3 weeks

A1B: 3, 7, 9

Objectives	Methods	Resources	Assessment
The students will <ol style="list-style-type: none">1. Graph square root functions.2. Simplify radical expressions.3. Solve radical equations.4. Use Pythagorean theorem and its converse.5. Use distance and midpoint formulas.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1</u>, 2011	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work

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Unit 12: Rational Equations and Functions

Biblical Worldview Essential Question:
What are the “many terms” of the Mosaic Law?

14 Lessons – 6 weeks

A1B: 2, 3, 5

Objectives	Methods	Resources	Assessment
The students will 1. Write and graph inverse variation equations. 2. Graph rational functions. 3. Divide polynomials. 4. Simplify rational expressions. 5. Multiply and divide rational expressions. 6. Add and subtract rational expressions. 7. Solve rational equations.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1</u>, 2011	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work

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Unit 13: Probability and Data Analysis

Biblical Worldview Essential Question:

What are “rational arguments” for the creation account in Genesis 1?

8 Lessons – 3 weeks

A1B#8, 9

Objectives	Methods	Resources	Assessment
The students will <ol style="list-style-type: none">1. Find sample spaces and probabilities.2. Use the formula for the number of permutations.3. Use combinations to count possibilities.4. Find probability of a compound event.5. Identify populations and sampling methods.6. Compare measures of central tendency and dispersion.7. Make stem-and-leaf plots and histograms.8. Make and interpret box-and-whisker plots.	<ul style="list-style-type: none">• Teacher lecture• Teacher working examples on the board.• Student guided practice of problems in book• Cooperative learning groups• Individual assistance• Partner work• Worksheets• Homework• Show related YouTube videos.	<ul style="list-style-type: none">• <u>Holt McDougal Larson Algebra 1</u>, 2011	<ul style="list-style-type: none">• Check homework.• Quizzes• Mid-Chapter Test• Chapter test• Oral response• Board work• Final Exam