SHORMANN MATHEMATICS

# ALGEBRA 1 WITH INTEGRATED GEOMETRY



# Parents: Course Setup & Login

While the instruction, grading, and Q&A support are provided, a parent or teacher should supervise to ensure the student follows the course instructions and check their written work. Don't worry! You don't need to do any grading or know anything about math! Simply follow these steps:

- 1. Please watch with your student: Getting Started
- 2. CRITICAL: Read Parent Responsibilities & How to Check Student Work
- 3. Decide: <u>Hybrid Offline Method for Practice Sets</u>
- 4. To ensure your device is setup for our eLearning system, please follow the: <u>Computer & Device Setup Instructions</u>
- 5. Print these Student Instruction Sheets:
  - Reading Assignment Instruction
  - Note-Taking Instruction Sheet
  - Practice Set Instruction Sheet
  - Quiz Instruction Sheet
  - Study for Exams Instruction Sheet
- 6. Read: The Timed Method, Algebra Prep Drills, & Family Grading Subscription
- 7. Required Materials:
  - Ruler & Drawing Compass or the free Geometry App
  - Select a Recommended Calculator
  - A 2-inch binder and 3-hole paper (blank or college-ruled). Lecture notes, corrections and homework may be done in this binder. OR
     A spiral notebook with college-ruled paper for lectures and corrections plus copy paper for homework lessons
  - Small spiral notebook (4x6) for formulas
- 8. After you receive the login email, follow the steps under **PARENTS** to continue setting up the course. To find out when your login email will be sent, see: <u>eCampus</u>
- 9. There is no separate parent login. Parents use the same login the student uses. <u>Learn More</u>.

#### Teacher Guide

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Shormann Math combines tried and true teaching methods with 21st Century technology. It is a user-friendly course with video lectures, interactive homework, automated grading, grade recording, video solutions, and Q&A email support.

Shormann Algebra 1 and 2 integrate 1 full credit of geometry. When finished with both, one full credit of algebra 1, 2, and geometry are earned! All the concepts required for a variety of standardized tests, including the redesigned PSAT and SAT, ACT, and the CLEP College Algebra and College Mathematics exams, are taught, then continually reviewed, developing fluency and raising test scores.

After completing Shormann Algebra 1 and 2, students can spend 2-3 weeks using our <u>CLEP Professor College Algebra</u>, a short prep course included in the Shormann Algebra 2 eCourse, to prepare for the CLEP exam and earn up to 3 college credits.

My primary goal is to teach students how math connects to their world and their Creator. I do this by teaching math as the language of science and a tool for understanding God and the world He created. In doing so, I pray that our courses will strengthen the student's relationship with Christ in ways that will help them be productive members of society who seek to glorify God in all they do!

# Important Resources

**Grade Changes and Resets** 

Ask Dr. Shormann a Homework,

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**Contact Tech Support** 

Contact a Consultant

Official Course Descriptions

NCAA

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**Transcripts & Credit** 

# **Pre-requisites**

Pre-Algebra (any publisher), Saxon Math 8/7, or Saxon Algebra 1/2

Take the Placement Test

# **Credits**

1 Algebra 1 Credit

1/2 Geometry Credit

# **Course Description**

Shormann Algebra 1 with Integrated Geometry teaches all the concepts required for a 21st Century integrated Algebra 1 and Geometry course, including simplifying algebraic expressions, solving equations (linear and quadratic) and linear systems. Standard geometry concepts include proof, logic, Euclidean geometry and perimeter/area/volume. Other topics include measurement, computer math, technology applications, statistics and a gentle introduction to basic calculus. This course has 100 lessons, 26 weekly quizzes, and four quarterly exams. Official Course Description and Credits

- Shormann Algebra 1 Scope and Sequence
- Assignment Chart

Standard Grade Scale

# **Honors or Standard Course Options**

Shormann Algebra 1 teaches all the topics required for an honors level course (Scope & Sequence). However, it is easily modified for use as a standard course by using the Standard Grade Scale. Also, our unique teaching methods of incremental bite-sized lessons and continual review, along with the Timed Method and state-of-the-art eLearning tools like instant feedback and Help links, make learning math faster and easier! Therefore, Shormann Algebra 1 is for everyone!

**Learn More: Credits & Transcripts** Honors Course Descriptions

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A – 93-100	A – 90 -100
B -84 - 92	B -80 - 89
C – 74 – 83	C - 70 - 79
D - 65 - 73	D - 60 - 69
F – 64 or below	F – 59 or below
I – Incomplete	I – Incomplete

## Using Shormann Math in a Classroom or Co-op

Shormann Math for Schools

**Honors Grade Scale** 

How to use Shormann Math in a Co-op

#### **Standardized Test Prep**

While Shormann Math helps students use math to become more creative like their Creator, glorifying Him and serving others, it also provides excellent preparation for standardized tests. By the time a student finishes Shormann Algebra 1 and 2, they will have covered all the math concepts presented on the redesigned PSAT and SAT, as well as the ACT, CLEP College Algebra and CLEP College Math exams! The Math section of the PSAT & SAT contributes 50% of the total score!

From Lessons 26-100, Practice Set problem #15 will ask a question about a concept covered on either the SAT, ACT, CLEP College Math, or CLEP College Algebra exam. These concepts will only appear in the Practice Set after they have been taught in a lesson.

Learn more at the link below. PSAT, SAT, and ACT Test Prep Recommendations

# Parent Responsibilities

While the eLearning course provides all the instruction and grading, it is the parent's responsibility to check their student's work to ensure the student is using the course as directed and to supervise students during the 4 exams. Please follow these steps after each lesson is completed: How to Check Student Work

#### Optional: Hybrid Offline Method for Practice Sets

In the eLearning course, students should solve each problem on paper before entering their answers. However, some students struggle with guessing. This can be solved by supervising your student and/or checking their handwritten work against the solutions manual (available upon request). Students can use the PDF of the textbook to complete Practice Sets on paper, then login to the eLearning system to enter their answers for grading and grade recording. For details, see: Hybrid Offline Method

# **Scheduling**

Shormann Algebra 1 is set up on a 30 week schedule. Since a school year is generally 36 weeks, there are six additional weeks that can be used when extra time is needed to grasp a concept. A good way to ensure the student has time to relearn, as needed, is to use the timed method (below). Strong math students should work on math a minimum of 4 days per week and struggling or reluctant math students should work on math a minimum of 5 days per week.

#### Timed Method: Frustration Free Math

Working beyond the brain's developmental ability to retain and process new information has the same effect as skipping the material. This leads to "careless" mistakes, frustration, and gaps in understanding.

Before starting math each day, set a timer for one hour. At the end of this time, regardless of how much of the lesson is completed, stop and have them pick-up where they left off the next day.

This allows the student to learn at their own pace, giving them extra time, when needed, to grasp a new concept or relearn forgotten concepts by rewatching video lessons, studying the help links, etc. When a student is **required** to complete a

lesson per day, they quickly realize that going back and relearning forgotten concepts can make the lesson last longer and they will likely skip this critical step. I cannot overemphasize the importance of relearning in the process of developing fluency (speed and accuracy). As fluency develops, the student will complete more and more of the lesson each day. Learn More: How will they finish on time?

#### Two or Three Semester Course

Because one and a half credits are earned (1 Algebra 1 and  $\frac{1}{2}$  Geometry), this course can also be completed in up to three semesters. The eLearning subscription is good for 24 months so every student can successfully complete the course.

#### **Don't Expect Immediate Mastery**

I strongly discourage incorporating "immediate mastery" methods into Shormann Math (Saxon Math, too!). For example, some parents and teachers will not let the student progress to the next lesson unless they have completely mastered the current lesson. This can cause discouragement and exasperation as well as negatively affect fluency.

Just like in sports or music, it takes time to learn a skill. Most students need to practice a skill over several days before mastery is achieved. That's why the Practice Sets review previous concepts over a long period of time. So, please use the system like it was designed, and give your student time to patiently practice and build their skills!

## Focus on Fluency

Fluency means speed and accuracy. The only way to develop fluency is by practicing the skill correctly over a long period of time. Think of a baseball pitcher or a concert pianist. How many times do they practice the same pitch or piece? How many times do they do it wrong while they are learning? Don't be surprised when your child gets the same problem wrong multiple times while they are learning. The key is to relearn the concept and try again.

Conversely, giving the solution before relearning will erode mastery. So instead of "helping" or letting the student see the answer, encourage students to relearn by using the links above each Practice Set question. There is a link to a similar example problem and a link to the video lecture that teaches that concept. If they still don't understand, they should skip it as they will relearn by watching the video solutions and solving the problem correctly on paper. In the beginning this process may be slow and laborious. Be patient, use the timed method, and eventually math will become faster and easier!

# **Course Components**

- I. Lessons: A daily lesson consists of 3 parts:
  - Read Rules and Definitions: <u>Instruction Sheet</u>
  - Video Lecture: <u>Instructions for Lectures</u>
  - o Practice Set:
    - Hybrid Offline Instructions
    - Practice Set Instructions
- II. Quizzes: Quiz Instruction Sheet
- III. Quarterly Exams: Quarterly Exams Instruction Sheet
- IV. eTextbook: A printable PDF of the complete textbook with the full lesson and practice sets. It is linked on the Course Home page under "Resources". A hard copy of can be purchased here: Textbook
- V. Solutions Manual for Practice Sets: To prevent student access, this is available by sending an email from the parent email address to <a href="mailto:support@diveintomath.com">support@diveintomath.com</a> with the student's username and course title.

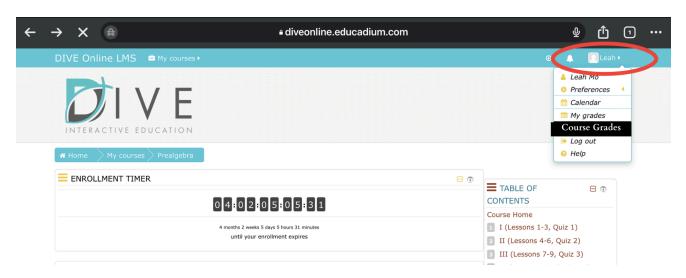
#### **Optional Resources for Purchase:**

- **Family Grading Subscription:** Allows parents to login to one account to view all of their children's grades and allows them to change grades and reset assignments for all of their students. Learn More
- Hard Copy of the eTextbook
- Hard Copy of the ePractice Set Booklet

# Online Grade Book & Grading

Note: If your student has a learning disability or you are not using the course as instructed (skipping assignments, giving more time on exams, etc.), also see the Learning Disabilities section below.

- 1. Login using the same login as the student, select "My Courses" in the top menu, then select the course title.
- 2. In the top right corner, select the student's name, then "Course Grades".



3. The grade book will open.

#### **Grade Book: Joe Smith**

	Your Studen	nt's Grades	Average Grade of All Students in this Course
Assignments	Grade	Percentage	Class Average
<b>□</b> Grading Shormann Prealgebra			
✓ Lesson 1 Practice Set	90.00	90.00 %	86.95
✓ Lesson 2 Practice Set	85.00	85.00 %	84.59
✓ Lesson 3 Practice Set	95.00	95.00 %	91.60
✓ Quiz 1(Lessons 1-3)	10.00	100.00 %	9.71
Lesson 4 Practice Set	90.00	90.00 %	93.36
✓ Lesson 5 Practice Set	97.50	97.50 %	94.04
Lesson 6 Practice Set	92.50	92.50 %	91.64
✓ Quiz 2(Lessons 4-6)			

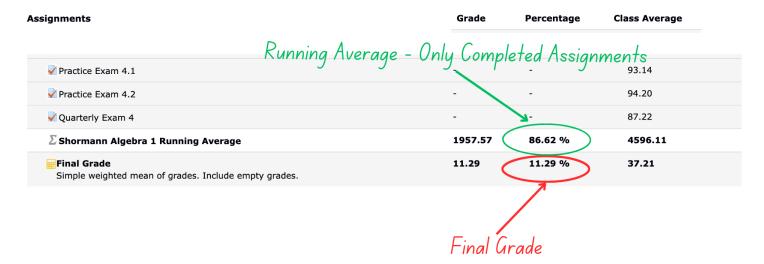
**Grade:** This is your student's grade in points.

**Percentage:** This is your student's grade as a percentage.

**Class Average:** This is **NOT** your student's grade. It's the average grade of ALL the students who have taken this assignment.

#### **Running Average:**

Scroll down to the bottom of the grade book and find the Running Average. This is the grade for all the assignments that have been completed so far. It does not include the zero for assignments that have not been completed. So, as long as the student has not skipped any assignments, this is where you would see the student's current grade based on the assignments they have completed.



#### **Final Grade:**

This is the grade used at the end of the course for the final grade. It includes the zeros for assignments that were not completed. In this example, only a few of the assignments have been completed so the final grade is very low. At the end of the course, if all assignments are completed, the Final Grade and Running Average are the same. If they are not, see "Issues" below.

#### Add Extra Credit to the Final Grade

For details, see "Optional Extra Credit" below.

#### **Transcripts & Credits**

For a free transcript template and detailed instructions, see <u>Transcripts & Credits</u>

#### ISSUES WITH THE GRADE BOOK

### Issue 1: Final Grade and Running Average Are Not the Same

This means one or more assignments were not completed. Scroll through the grade book and look for assignments in the "Percentage" column that don't have a grade. See the next section to resolve this issue.

#### Issue 2: No Grade in the Percentage Column

- 1. Select the title of the assignment in the Grade Book.
- 2. If there is a button that says "Continue Last Attempt", this means the student opened and/or started the assignment but did click Submit All & Finish.

  Select the "Continue Last Attempt" button, "Finish Attempt" then, "Submit All & Finish".
- 3. If there is a "Start Quiz" button, this means the student did not start the assignment. You can either leave it as a 0 or have the student do the assignment, which will raise the final grade.

# **Grade Weights**

The following describes how the grades are "weighted".

Practice Sets & Practice Exams: 30%

Weekly Quizzes: 30% Quarterly Exams: 40%

# Optional: Add Extra Credit

Keep in mind, as the parent and/or teacher, you are responsible for assigning grades. Our grade book is a tool to help you. You are not required to use the grades in the eLearning grade book or follow any of our recommendations. Use the course like you would any other textbook based curriculum, like Abeka or Bob Jones.

We don't recommend adding extra credit for correcting missed Practice Set problems as they have already had 4 attempts at each question where they can earn partial credit. For example, if they solve the problem on paper then, enter their answer and it is wrong, they can use the help links above each question to re-learn the concept, correct their work, then enter their answer again. If they get it right, they get partial credit for that answer. If they get it wrong, they get two more attempts to earn partial credit..

Because Practice Sets are just practice, they are a smaller percentage of the overall grade. Therefore, adding extra credit is like giving double extra credit. However, if would like give extra credit, here are some options:

**Option 1:** Add up to 3 points to the Final Grade in the Grade Book. (The final grade should not be more than 100.)

**Option 2:** Use the "Simplified Grading Method" below.

This extra credit cannot be added to the grade book. Simply add the points to your student's final grade, then put the new grade on the Certificate of Completion (see below).

# **Certificate of Completion**

Upon course completion, a certificate of achievement can be printed. Go to the Course Home page, scroll down the left menu, then click *Certificate*. There are detailed instructions on how to save, edit, and print the certificate.

## Learning Disabilities: How to Modify the Timed Quizzes and Exams

While we cannot change the timer on the exams or quizzes, you can give the student more time by following these steps. We also have a new <u>Family Grading Subscription</u> that allows parents to change grades and reset assignments for all of their students.

#### **Quizzes: How to Modify the Time**

Parent Supervision Required: After the first attempt, the Results Page with all the answers is displayed. Quizzes have a 20 minute time limit and four questions which only takes most students about 10 minutes. So you may want to try it normally first. To double the time to 40 minutes, follow these steps:

- 1. The student should study using the Study Instructions just above the link to the quiz.
- 2. Have the student take the quiz twice. In the first attempt, complete only the first two questions. In the second attempt, complete the last two questions.
- 3. Add the scores of each attempt. Then, do one of the following:
  - i. Use the "Simplified Grade Recording Method" below.
  - ii. Use the new Family Grading subscription that allows parents to change grades and reset assignments. See: <u>Family Grading</u>
  - iii. Use the "Request Grade Change & Resets" form to request a grade change.
- 4. **Critical:** Have the student correct missed problems by following the steps on the "Quiz Instruction Sheet", linked above the quiz.

#### **Exams: How to Modify the Time**

The exams are limited to one hour. This method doubles the time to two hours.

- 1. Study using the "Study Instruction Sheet" linked just above the exam.
- Have the student take the exam twice. In the first attempt, complete only the first half of the exam. In the second attempt, complete the second half. This gives the student 2 hours to complete the exam.
- 3. Add the two scores together.
- 4. Have the student correct all missed problems on paper.
- 5. Optional: If you want to compensate for the fact that students normally get two full attempts and the grades are averaged, you can do the following: If they correct all missed problems, add 100 points to their grade and divide by two. So if they made a 40 on attempt 1 and 45 on attempt 2, their grade would be 85+100 divided by 2 = 92.5.
- 6. For grade recording you can do one of the following:
  - i. Use the "Simplified Grade Recording Method" below.
  - ii. Use the new Family Grading subscription that allows parents to change grades and reset assignments. See: **Family Grading**
  - iii. Use the "Request Grade Change & Resets" form to request a grade change.

## **Grading for Learning Challenged Students**

Because students with learning challenges often require many accommodations, grade changes, and resets, we offer two options to simplify grade recording:

- i. Use the "Request Grade Change & Resets" form to request a grade change.
- ii. Instead of submitting multiple grade change requests:
  - Use the "Simplified Grade Recording Method" below.
  - Use the new Family Grading subscription that allows parents to change grades and reset assignments. See: <u>Family Grading</u>

# Simplified Grading Method

If you allow your student to skip assignments, modify the time for learning disabilities, etc, the online grade book will not accurately calculate a final grade. Instead, you can either use the <u>Family Grading Subscription</u> or use this simple method to give a completion grade of 90 for all Quizzes and Practice Sets. This way, you don't need to submit multiple grade change requests or manually record all the scores. All you need to record are the four exam grades. Then, use the formula below. This new grade can be added to the <u>Certificate</u>.

**Exam Average:** Add the exam grades and divide by 4.

Final Grade = Exam Average (.40) + 54

For Example: If the exam average is a 70, it would be: 70 (.40) + 54 = 82

To use a different completion grade for the Practice Sets and Quizzes, use this formula: Final Grade = Exam Average (.40) + Completion Grade (.60)

To calculate an exact score manually, record all the grades, then use this formula:

Exam Avg. (.40) + Quiz Avg. (.30) + Practice Set Avg. (.30)

You can also request a grade change for each assignment by using the "Request A Grade Change Form" on the Course Home page.

#### **Results of Former Students**

#### Why do results matter?

Shormann Math builds on a solid foundation of time-tested teaching methods, including the incremental development + continual review format pioneered by John Saxon(1923-1996). And not just Saxon's teaching methods, but his teaching thoughts as well, including his thought that "Results, not methodology, should be the basis of curriculum decisions."

One of the primary reasons John Saxon developed his math curriculum in the 1980s was because new ways of teaching math were not working. Math "educrats" at the time were promoting their untested "visions" of math teaching. But with 3 engineering degrees, John was a math user before he became a math teacher. Not

only that, he was a test pilot. If anyone knew the extreme value and importance of testing a new product, it was John!

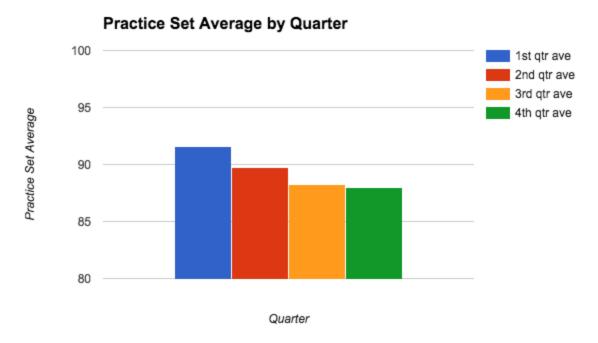
Results matter because they reveal whether or not a new product really works. And while statistics certainly don't reveal everything about a new product, they can certainly reveal many things. **Most math curricula don't provide this level of detail on student performance.** We are pleased to provide it for you.

#### **Overall performance**

Overall Average	90.3%
Range(lowest to highest)	81.0-97.9%
% Students making an A(90%+)	67%

<u>Discussion</u>: The average student in our beta test made an A in the class! Because each new Shormann Math course is beta-tested in a live online class setting, Dr. Shormann gets to know the students on more than just a "numbers only" basis. And we all know that God doesn't make clones, so the fact that not every student performed the same should not be a surprise. Natural talent definitely matters, but so do things like attitude and maturity. Dr. Shormann spends time during the video lectures encouraging students to develop fruits like patience and self-control (Galatians 5:22-23), as well as persevering with joy (James 1:2-3), and gratefulness (I Thessalonians 5:18).

#### **Practice Sets**



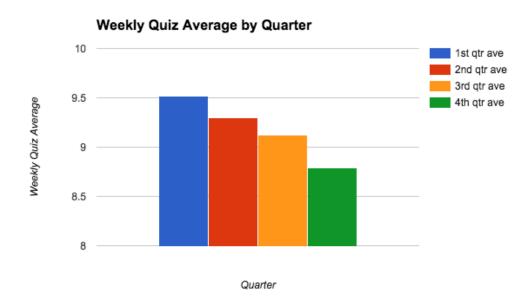
<u>Discussion:</u> You've probably never seen statistics on student performance in a math class before, which is why it is important to discuss the data! The decreasing trend over time is exactly what we expected. Two big factors are responsible for the trend:

1) There's more review of previously-learned concepts at the beginning, so it's easier and 2) student effort tends to decrease the closer you get to the end of the year!

What we had hoped for was a Practice Set average above 85%, and that was achieved in all 4 quarters! 85% is a good cutoff for determining whether students are understanding, and retaining most of the concepts learned.

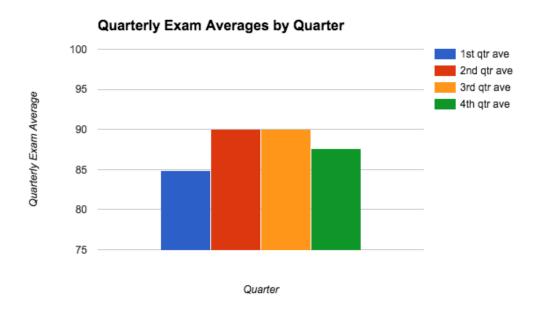
Note also the high first quarter average. Because Shormann Math is built on John Saxon's method of integrating geometry and algebra, students using Shormann Prealgebra, Saxon Math 8/7 or Saxon Algebra ½ will be most comfortable starting Shormann Math. However, not all beta-test students used Saxon previously, so the high first quarter average is a good indication that students who successfully completed any pre-algebra course should do just fine in Shormann Math.

#### **Weekly Quizzes**



<u>Discussion:</u> Weekly Quizzes show a similar trend to the Practice Sets, challenging the students more as the year progressed. A score of 8 out of 10 or higher is a good indication of whether students understood the lessons covered that week. We are pleased that scores were well above this in all four quarters!

#### **Quarterly Exams**



<u>Discussion</u>: Notice the Quarterly Exams do not follow the same trend as Practice Sets or Weekly Quizzes, with Quarter 1 having the lowest average. And this is where beta-testing a new product is so valuable. We realized that we were asking a lot for 9th-grade level students, most of which had never taken a cumulative exam like this. The solution? Practice exams! Just like when learning a sport, a musical

instrument, etc., good practice results in good performance. The beta-test students clearly performed best on first quarter Practice Sets and Quizzes. Most likely, if they were given practice exams prior to their quarterly exam 1, this would have been their highest exam average. Now, all quarterly exams have two practice exams that students use to study for their actual exam.

85%+ is an indicator of good retention and understanding of concepts covered in a quarter. For all 4 quarters, student averages were at, or well above 85%. Because of Shormann Math's format of continual review, we are basically asking students to be responsible for "all their math, all the time." These results show that, on average, students are responding very well!

# Scope & Sequence

For Shormann Algebra 1 with Integrated Geometry

To jump to the Course Sequence, click here: Course Sequence

Number (Arithmetic)
Compare and order integers and positive rational numbers
Represent squares and square roots using geometric models
Use models to add, subtract, multiply and divide integers and connect the actions of algorithms
Simplify numerical expressions involving order of operations and exponents
Select and use appropriate operations to solve problems and justify the selections
History of number, where arithmetic symbols come from, other numeral systems
Operations with whole number exponents
Operations with fractional exponents
Operations with scientific notation
Logarithm means exponent
Subsets of Real Numbers
Consecutive Integer
The complex plane
Prime and numbers
Odd and even numbers
Factors and divisibility
Absolute value and order
Arithmetic word problems (including percent, ratio, and proportion)
Elementary number theory
Ratio (Fractions)
Define ratio, Greek's idea of comparison (rational), connect to other areas like language, unity/diversity

Greek's discovery of square root of 2 and problems they had

History of pi, golden ratio, etc.

Convert between fractions, decimals, percents and whole numbers

Represent multiplication and division involving fractions and decimals by using concrete models, pictures, words and numbers

Use addition, subtraction, multiplication and division to solve problems involving fractions and decimals

Use division to find rates and ratios in proportional relationships such as speed, density, price, recipes, and student-teacher ratio

Estimate and find solutions to application problems involving percent

Estimate and find solutions to application problems involving proportional relationships such as similarity, scaling, unit costs, and related measurement units.

Rational and irrational numbers

Applications from algebra and geometry

Rational and radical equations

Direct and inverse variation

Square roots and approximations

#### Algebra

Word games like Sawyer's "bag of stones" trick to bridge algebra and arithmetic; history and etymology of algebra

Generate algebraic formulas involving conversions, perimeter, area, circumference, volume, and scaling

Given a situation, the student looks for patterns and represents generalization algebraically

Student uses the commutative, associative, distributive, properties to simplify algebraic expressions

Factoring Polynomials

**Expanding Polynomials** 

Additions with algebraic expressions

Subtraction with algebraic expressions

Multiplication with algebraic expressions

Combined operations with algebraic expressions

Operations with Variable exponents Operations with combined operations Use concrete models to solve equations and use symbols to record actions Formulate a possible problem situation when given a simple equation Use symbols to represent unknowns and variables The student finds specific function values, simplifies polynomial expressions, transforms and solves equations, factors as necessary in problem situations Quadratic equations, standard form and factoring Finding roots of quadratic equations Quadratic formula Absolute value equations Creating systems of equations from word problems Nonstandard algebraic equations and solutions Modeling functions numerically Modeling functions symbolically Modeling functions verbally Finding domain and range from functions **Evaluating functions** Substitution and simplifying algebraic expressions Using variables to express functional relationships Elimination (systems of equations) Geometry Euclid, axioms, postulates, and deductive reasoning Euclid, theorems, proofs Aristotle, logic, syllogisms Use angle measurements to classify pairs of angles as complementary or supplementary Use properties to classify shapes including triangles, quadrilaterals, pentagons, and circles

Use properties to classify solids, including pyramids, cones, prisms and cylinders

Use critical attributes to define similarity

Sketch a solid when given the top, side, and front views

Make a net (two-dimensional model) of the surface area of a solid

Use geometric concepts and properties to solve problems in fields such as art and architecture

Make and verify conjectures about angles, lines, polygons, circles, and three-dimensional figures, choosing from a variety of approaches such as coordinate, transformational, or axiomatic

Determine if the converse of a conditional statement is true or false

Construct and justify statements about geometric figures and their properties

Use inductive reasoning to formulate a conjecture

Use deductive reasoning to prove a statement

Use numeric and geometric patterns to make generalizations about geometric properties, including properties of polygons, ratios in similar figures and solids, and angle relationships in polygons and circles

Use properties of transformations and their compositions to make connections between mathematics and the real world in applications such as tesselations or fractals

Identify and apply patterns from right triangles to solve problems, including special triangles (45- 45-90, 30-60-90) and triangles whose sides are Pythagorean triples

Describe and draw cross sections and other slices of three-dimensional objects

Use nets to represent and construct three dimensional objects

Use top, front, side and corner views of three-dimensional objects to create accurate and complete representations and solve problems

Properties of triangles, circles and rectangles

Special properties of isosceles, equilateral, and right triangles

Concept of proof and proof technique

Triangle congruency

Triangle proofs

Construction

#### **Analytical Geometry**

Descartes and Fermat and history of analytical geometry Rectangular Coordinate System Locate and name points on a coordinate plane using ordered pairs of integers Finding the slope of a line Linear equations Identify and sketch the general forms of linear (y=x) parent functions Parallel and perpendicular lines Graphing systems of linear equations Functions and relations Modeling functions graphically Finding domain and range from graphs Graphs and intercepts Graphing functions Describe independent (input) and dependent (output) quantities in functional relationships Use data sets to determine functional (systematic) relationships between quantities Describe functional relationships for given problem situations and write equations or inequalities to answer questions arising from the situations Represent relationships among quantities using concrete models, tables, graphs, diagrams, verbal descriptions, equations, and inequalities Interpret and makes inferences from functional relationships For a variety of situations, the identify mathematical domains and ranges and determine reasonable domain and range values for given situations Interpret situations in terms of given graphs or create situations that fit graphs In solving problems, the student collects and organizes data, makes and interprets scatterplots, and models, predicts, and makes decisions and critical judgments Determine whether or not given situations can be represented by linear or nonlinear functions Determines the domain and range values for which linear or nonlinear functions make sense for given situations Use combinations of algebraic, tabular, graphical, or verbal descriptions of linear functions

Analyze situations involving linear functions and formulate linear equations and inequalities to solve a problem

Investigate methods for solving linear equations and inequalities using concrete models, graphs, and the properties of equality, select a method, and solve the equations and inequalities

For given contexts, interpret and determine the reasonableness of solutions to linear equations and inequalities

Analyze situations and formulates systems of linear equations to solve problems

Solve systems of linear equations using concrete models, graphs, tables, and algebraic methods

For given contexts, interpret and determine the reasonableness of solutions to systems of linear equations

Use one and two-dimensional coordinate systems to represent points, lines, line segments, and figures

Use slopes and equations of lines to investigate geometric relationships, including parallel lines, perpendicular lines, and special segments of triangles and other polygons.

Identify graphic and symbolic forms of the following nonlinear functions: absolute value, quadratic, square root, exponential, cubic, reciprocal

#### Measurement

The Lord abhors dishonest weights and measures (Proverbs 20:10, etc.)

Solve application problems involving estimation and measurement. Estimate measurements and solve application problems involving length, area, and volume

Volume of box, cube, cylinder, prism, sphere

Total surface area

Surface area and volume of more complex shapes like pipes and washers

Length conversions

Area conversions

Volume conversions

Foreign currency conversions

Gas law problems

Evaluating scientific formulas

Density as a direct relationship

Evaluating financial formulas (interest rate, savings and debt)

# **Trigonometry** Distance and midpoint formulas Right angle relationships Sine, cosine, tangent Pythagorean theorem Polar coordinates Vectors and parallelogram law (Whitehead) Visualize location of resultant vector by applying Parallelogram Law Periodicity Unit circle **Calculus** Archimedes, Newton, Euler and Leibniz, history of calculus Faster/slower, speed and rate, acceleration Limits, tangent Slope and area under a curve, connecting calculus to algebra/geometry fundamentals Students develop the concept of slope as rate of change and determine slopes from graphs, tables, and algebraic representations Interpret the meaning of slope and intercepts in situations using data, symbolic representations, or graphs Investigate, describe, and predict the effects of changes in m and b on the graph y=mx+b Graph and write equations of lines given characteristics such as two points, a point and a slope, or a slope and y-intercept Determine the intercepts of linear functions from graphs, tables, and algebraic representations Interpret and predict the effects of changing slope and y-intercept in applied situations Relate direct variation to linear functions and solves problems involving proportional change

Integrals I (summing area under curve)

Derivatives of  $f(x)=x^2$ 

Ratios as rates

#### **Statistics**

Gauss and bell curve

Computation of probabilities of simple and compound events

Find approximate probability of a compound event through experimentation

Select and use an appropriate representation for presenting collected data and justify the selection

Make inferences and convincing arguments based on an analysis of given or collected data

Describe a set of data using mean, median, mode, and range

Choose among mean, median, mode, or range to describe a set of data and justify the choice for a particular solution

Data interpretation and representation: tables; bar, line, circle graphs; pie charts, scatterplots, histograms, with and without margin of error

Chi square

Linear regression

Using Punnett squares

Hardy-Weinberg equilibrium

## **Computer Math**

Binary system, connection to computer screen and pixels

Difference between discrete and continuous and analogy to one and many

Describe relationship between terms in a sequence and their positions in sequence

Select and use appropriate representations for presenting collected data and justify the selection

Sequences

Series

2 x 2 matrices, operations

# Course Sequence

# For Shormann Algebra 1 with Integrated Geometry

Lesson 1 Thinking A	Numbers I: What is Mathematics? - Mathematical Periods in History - bout Numbers
Lesson 2	Numbers II: Origins - Types of numbers, number lines - Arithmetic Review
Lesson 3	Numbers III: Operations - Absolute Value - Order of operations and exponents
Lesson 4 and Decim	Ratios I: History - Rational and Irrational Numbers - Operations With Fractions nals
Week 1 Qu	liz en la companya de la companya d
Lesson 5	Ratios II: Fraction/Decimal/Percent - Operations With Fractions and Decimals
Lesson 6	Ratios III: Rate - Similarity and Scaling
Lesson 7	Algebra I: What is Algebra? - Basic Algebra Rules
Lesson 8	Algebra II: Word Problems - Simplifying Algebraic Expressions
Week 2 Qu	uiz
Lesson 9 Congruenc	Geometry I: Euclid, Postulates, and Deductive Reasoning - Similarity and
Lesson 10 Proofs	Geometry II: Inductive Reasoning, Construction - Deductive Reasoning and
Lesson 11	Geometry III: More Geometric Properties, Transformations - Logic
Lesson 12 Definitions	Geometry IV: Pythagorean Theorem - Application of Other Rules and
Week 3 Qu	uiz
Lesson 13	Geometry V: Solids, Nets - Geometry in Art and Architecture, Nature
Lesson 14 Plane	Analytical Geometry I: Foundations of Analytical Geometry - The Coordinate
Lesson 15	
200001110	Analytical Geometry II: Functions (without graphing) - Domain and Range

#### Week 4 Quiz

- Lesson 17 Analytical Geometry IV: More on Linear Functions Systems of Equations
- Lesson 18 Measurement: Unit conversions Perimeter, Area, and Volume
- Lesson 19 Trigonometry: Trigonometry Basics (Calculator required)

#### Week 5 Quiz

- Lesson 20 Calculus I: What is Calculus? Infinitesimals and Limits
- Lesson 21 Calculus II: The Derivative Calculus and the Trinity
- Lesson 22 Calculus III: More on Derivatives and Tangent Lines Applications The Integral

#### Week 6 Quiz

- Lesson 23 Statistics I: Collecting Data, Making Tables and Histograms Mean, Median, Mode, Range
- Lesson 24 Statistics II: Probability, Simple and Compound Events Linear Regression and Best Fit
- Lesson 25 Computer Math: Pixels, Bits, and Binary Numeral System Sequences and Series Matrices

#### Week 7 Quiz

- **Exam 1, Week 8:** Practice Exam 1.1 & 1.2, Quarterly Exam 1
- Lesson 26 Arithmetic Word Problems: Word Problems and Data from a Chart
- Lesson 27 Decimal and Percent Word Problems: Decimal Word Problems Percent Word Problems
- Lesson 28 Proportion Word Problems: Review: Lesson 6B
- Lesson 29 Standardized Test Questions (ACT, SAT, CLEP): Review: Lessons 2-25

#### Week 9 Quiz

- Lesson 30 Operations With Whole Numbers and Exponents
- Lesson 31 Operations With Fractional Exponents
- Lesson 32 Operations With Variable Exponents: Review: Lesson 7, 30, 31

Lesson 33 Operations With Scientific Notation: Converting to and from Scientific Notation

#### Week 10 Quiz

- Lesson 34 Power Rule, Product of Square Roots Rule: Power Rule Product of Square Roots Rule
- Lesson 35 Addition of Like Terms: Review: Lesson 7 and 8 on simplifying algebraic expressions
- Lesson 36 Subtraction of Like Terms: Review: Lesson 7 and 8 on simplifying algebraic expressions
- Lesson 37 Multiplication With Algebraic Expressions: Expanding

#### Week 11 Quiz

- Lesson 38 Combined Operations With Algebraic Expressions
- Lesson 39 Simplifying Algebraic Fractions: Canceling and Factoring Simplifying Complex Fractions
- Lesson 40 Circles and Angles Radical Expressions and Addition of Like Terms
- Lesson 41 Area, Surface Area: Area of Shaded Regions and Sectors

#### Week 12 Quiz

- Lesson 42 Volume of Right Solids with Holes, Total Surface Area:
- Lesson 43 Special Right Triangles, Pythagorean Theorem Applications
- Lesson 44 Length Conversions, Scientific Notation on a Calculator
- Lesson 45 Area and Volume Conversions: Area Conversions Volume Conversions

#### Week 13 Quiz

- Lesson 46 Solving Multivariable Equations: Review: Mainly lessons 7, 8, 37, and 39A
- Lesson 47 Solving Rational Equations: Review: Lesson 4 on least common multiple (LCM), Lessons 7, 46
- Lesson 48 Creating Linear Equations from Two Points and from Word Problems
- Lesson 49 Parallel and Perpendicular Lines: Parallel Lines Perpendicular Lines
- Lesson 50 Expanding Squared Binomials, Euler Word Problems

#### Week 14 Quiz

Lesson 68

Exam 2, Week 15: Practice Exam 2.1 & 2.2, Quarterly Exam 2 Lesson 51 Factoring Trinomials: Review: Lessons 8, 39, 50 Lesson 52 Modeling Functions through Graphical Representation - Functions and Relations Lesson 53 Numerical Applications with Functions - Numerical Representation Lesson 54 Modeling Functions Symbolically: Review: Lessons 15, 16, 52 Week 16 Quiz Modeling Functions Verbally: Review: Lessons 15, 16, 48, 52, 54 Lesson 55 Lesson 56 The Algebra of Functions: Review: Lessons 15, 16, 52-55 Lesson 57 Horizontal and Vertical Shifts in Functions, Domain and Range from Graphs Lesson 58 Distance Between Two Points, More on Simplifying Radical Expressions Week 17 Quiz Lesson 59 Inverse Trigonometric Functions - Polar Coordinates and Vectors Lesson 60 Reflections of Functions, Evaluating Scientific Formulas Lesson 61 Solving Systems of Equations from Graphs, Finding Optimums from Graphs Lesson 62 More About Simplifying Complex Fractions: Review Lesson 39 Week 18 Quiz Simple Probability, Conditional Probability: Simple Probability - Conditional Lesson 63 Probability Lesson 64 Using Substitution to Solve Systems of Equations: Review: Lesson 7, 15, 17, 56, 61. Lesson 65 Limits, Part I: Review: Lesson 20. Circle Properties II, Concept of Proof and Proof Technique Lesson 66 Week 19 Quiz Lesson 67 Proving Euclid's Proposition 2: Review: Lessons 9, 10, and 66.

Triangle Congruency; Triangle Proofs: Triangle Congruency - Triangle Proofs

Lesson 69 Interest Rate, Savings, and Debt: What Does the Bible Say About Savings and Debt?

#### Week 20 Quiz

- Lesson 70 Using Elimination to Solve Systems of Equations: Review: Lessons 7, 61, 64
- Lesson 71 More Rational and Radical Equations: Radical Equations More on Rational Equations
- Lesson 72 Direct and Inverse Variation: Direct Variation Inverse Variation

#### Week 21 Quiz

- Lesson 73 Nonstandard Solutions to Algebraic Equations: Review: Lessons 7, 64, 70
- Lesson 74 Consecutive Integer Word Problems: Consecutive Integer Word Problems
- Lesson 75 Quadratic Equations: Standard Form and Factoring: Standard Form of Quadratic Equations

#### Week 22 Quiz

#### Exam 3, Week 23: Practice Exam 3.1 & 3.2, Quarterly Exam 3

- Lesson 76 Finding Roots of Quadratic Equations: Review: Lesson 75
- Lesson 77 Punnett Squares; Hardy-Weinberg Equation: Punnett Squares The Hardy-Weinberg Equation
- Lesson 78 The Parallelogram Law and Resultant Vectors: Review: Lesson 59
- Lesson 79 Logarithm Means Exponent: History of Logarithms Logarithm Basics
- Lesson 80 Transversals and Right Triangles; Logarithms on a Calculator

#### Week 24 Quiz

- Lesson 81 Graphs and Intercepts: Graphs and Intercepts of Linear Functions Nonlinear Functions
- Lesson 82 Creating Systems of Equations from Word Problems: Review: Lessons 17, 64, 70
- Lesson 83 Word Problems with Two Statements of Equality: Review: Lesson 82
- Lesson 84 Uniform Motion Word Problems: Review: Lessons 6, 20, 60

#### Week 25 Quiz

Lesson 85 Limits, Part II: Rejecting Infinitesimals: A Fool's Errand - Infinity as a Limit

Lesson 86 Gas Law Problems: Review: Lesson 60

Lesson 87 Data Interpretation and Representation: Review: Lessons 17, 23, 24, 26

Lesson 88 Sequences: Review: Lesson 25

#### Week 26 Quiz

Lesson 89 Periodicity: The Unit Circle - Vectors and Sign Changes

Lesson 90 Series: Arithmetic Series - Geometric Series

Lesson 91 Completing the Square: Review: Lessons 51, 75, 76

Lesson 92 The Quadratic Formula: Review: Lesson 91

#### Week 27 Quiz

Lesson 93 Integrals and Infinitesimals: Review: Lessons 20, 21, 22, 25, 90

Lesson 94 Linear Regression: Review: Lessons 16, 17, 24, 48

Lesson 95 The Complex Plane: Graphing Complex Numbers - Quadratic Equations and

**Complex Numbers** 

Lesson 96 Uniform Motion and Unequal Distances: Review: Lesson 84

#### Week 28 Quiz

Lesson 97 Absolute Value Equations: Review: Lessons 3, 52, 73, 81

Lesson 98 Construction, Part I: Review: Lessons 10, 67

Lesson 99 Absolute Value Inequalities: Review: Lessons 17, 97

Lesson 100 Chi Square: Review: Lessons 23, 24, 77, 94

#### Week 29 Quiz

Exam 4, Week 30: Practice Exam 4.1 & 4.2, Quarterly Exam 4

# **Assignment Chart**

# For Shormann Algebra 1 with Integrated Geometry

Lesson				
1	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
2	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
3	☐ Reading	☐ Lecture	☐ Practice Set	□ Corrections
4	☐ Reading	☐ Lecture	☐ Practice Set	□ Corrections
Quiz 1	☐ Study	☐ Take Quiz	☐ Corrections	
5	□ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
6	□ Reading	☐ Lecture	☐ Practice Set	□ Corrections
7	□ Reading	☐ Lecture	☐ Practice Set	□ Corrections
8	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 2	☐ Study	☐ Take Quiz	☐ Corrections	
9	Reading	☐ Lecture	☐ Practice Set	□ Corrections
10	☐ Reading	☐ Lecture	☐ Practice Set	□ Corrections
11	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
12	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 3	☐ Study	☐ Take Quiz	☐ Corrections	
13	☐ Reading	☐ Lecture	☐ Practice Set	□ Corrections
14	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
15	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
16	Reading	☐ Lecture	☐ Practice Set	□ Corrections
Quiz 4	☐ Study	☐ Take Quiz	☐ Corrections	
17	Reading	☐ Lecture	☐ Practice Set	□ Corrections
18	□ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
19	□ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 5	□ Study	☐ Take Quiz	☐ Corrections	
20	□ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
21	☐ Reading	☐ Lecture	☐ Practice Set	□ Corrections

Lesson			
22	Reading	☐ Lecture ☐ Practice Set	☐ Corrections
Quiz 6	☐ Study	☐ Take Quiz ☐ Corrections	
23	☐ Reading	☐ Lecture ☐ Practice Set	□ Corrections
24	Reading	☐ Lecture ☐ Practice Set	□ Corrections
25	☐ Reading	☐ Lecture ☐ Practice Set	□ Corrections
Quiz 7	☐ Study	☐ Take Quiz ☐ Corrections	
Practice Exam 1.1	□ Study	Practice Exam	
Practice Exam 1.2	□ Study	Practice Exam Corrections	
Exam 1 (Attempt 1)	□ Study	☐ Take Exam 1 ☐ Corrections	
Exam 1 (Attempt 2)	□ Study	☐ Take Exam 1 ☐ Corrections	
26	Reading	☐ Lecture ☐ Practice Set	☐ Corrections
27	Reading	☐ Lecture ☐ Practice Set	□ Corrections
28	Reading	☐ Lecture ☐ Practice Set	□ Corrections
29	☐ Reading	☐ Lecture ☐ Practice Set	☐ Corrections
Quiz 9	☐ Study	☐ Take Quiz ☐ Corrections	
30	Reading	☐ Lecture ☐ Practice Set	□ Corrections
31	Reading	☐ Lecture ☐ Practice Set	□ Corrections
32	☐ Reading	☐ Lecture ☐ Practice Set	□ Corrections
33	Reading	☐ Lecture ☐ Practice Set	☐ Corrections
Quiz 10	☐ Study	☐ Take Quiz ☐ Corrections	
34	Reading	☐ Lecture ☐ Practice Set	□ Corrections
35	☐ Reading	☐ Lecture ☐ Practice Set	☐ Corrections
36	☐ Reading	☐ Lecture ☐ Practice Set	☐ Corrections
37	☐ Reading	☐ Lecture ☐ Practice Set	☐ Corrections
Quiz 11	☐ Study	☐ Take Quiz ☐ Corrections	
38	☐ Reading	☐ Lecture ☐ Practice Set	☐ Corrections
39	☐ Reading	☐ Lecture ☐ Practice Set	□ Corrections

Lesson				
			Duniin Col	D. C
40	□ Reading	☐ Lecture ☐		☐ Corrections
41	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
Quiz 12	☐ Study	☐ Take Quiz ☐	1 Corrections	
42	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
43	Reading	☐ Lecture ☐	Practice Set	☐ Corrections
44	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
45	Reading	☐ Lecture ☐	Practice Set	☐ Corrections
Quiz 13	☐ Study	☐ Take Quiz ☐	1 Corrections	
46	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
47	Reading	☐ Lecture ☐	Practice Set	☐ Corrections
48	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
49	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
50	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
Quiz 14	☐ Study	☐ Take Quiz ☐	1 Corrections	
Practice Exam 2.1	☐ Study	Practice Exam 2.1	1 Corrections	
Practice Exam 2.2	☐ Study	Practice Exam 2.2	1 Corrections	
Exam 2 (Attempt 1)	□ Study	☐ Take Exam 2 ☐	1 Corrections	
Exam 2 (Attempt 2)	□ Study	☐ Take Exam 2 ☐	1 Corrections	
51	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
52	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
53	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
54	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
Quiz 16	☐ Study	☐ Take Quiz ☐	<b>C</b> Orrections	
55	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
56	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
57	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections
58	☐ Reading	☐ Lecture ☐	Practice Set	☐ Corrections

Lesson				
Quiz 17	☐ Study	☐ Take Quiz	☐ Corrections	
59	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
60	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
61	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
62	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 18	☐ Study	☐ Take Quiz	☐ Corrections	
63	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
64	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
65	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
66	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 19	☐ Study	☐ Take Quiz	☐ Corrections	
67	Reading	☐ Lecture	☐ Practice Set	□ Corrections
68	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
69	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 20	☐ Study	☐ Take Quiz	☐ Corrections	
70	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
71	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
72	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 21	☐ Study	☐ Take Quiz	☐ Corrections	
73	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
74	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
75	Reading	☐ Lecture	☐ Practice Set	□ Corrections
Quiz 22	☐ Study	☐ Take Quiz	☐ Corrections	
Practice Exam 3.1	□ Study	Practice Exam 3.1	☐ Corrections	
Practice Exam 3.2	□ Study	Practice Exam 3.2	☐ Corrections	
Exam 3 (Attempt 1)	□ Study	☐ Take Exam 3	☐ Corrections	
Exam 3 (Attempt 2)	□ Study	☐ Take Exam 3	☐ Corrections	

Lesson				
76	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
77	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
78	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
79	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
80	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 24	☐ Study	☐ Take Quiz	☐ Corrections	
81	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
82	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
83	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
84	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 25	☐ Study	☐ Take Quiz	☐ Corrections	
85	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
86	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
87	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
88	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 26	☐ Study	☐ Take Quiz	☐ Corrections	
89	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
90	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
91	☐ Reading	☐ Lecture	☐ Practice Set	☐ Corrections
92	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 27	☐ Study	☐ Take Quiz	☐ Corrections	
93	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
94	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
95	Reading	☐ Lecture	☐ Practice Set	Corrections
96	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 28	☐ Study	☐ Take Quiz	☐ Corrections	
97	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
98	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
99	Reading	☐ Lecture	☐ Practice Set	☐ Corrections

Lesson				
100	Reading	☐ Lecture	☐ Practice Set	☐ Corrections
Quiz 29	☐ Study	☐ Take Quiz	☐ Corrections	
Practice Exam 4.1	☐ Study	Practice Exam 4.1	☐ Corrections	
Practice Exam 4.2	☐ Study	Practice Exam 4.2	☐ Corrections	
Exam 4 (Attempt 1)	□ Study	☐ Take Exam 4	☐ Corrections	
Exam 4 (Attempt 2)	□ Study	☐ Take Exam 4	☐ Corrections	