

TEACHER GUIDE

PDF



CALCULUS

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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. Don't worry, you don't need to know anything about math! Simply follow these steps:

1. Please watch [with](#) your student: [Getting Started](#)
2. **CRITICAL:** Read [Parent Responsibilities and How to Check Student Work](#)
3. To ensure your device is setup for our eLearning system, please follow the: [Computer & Device Setup Instructions](#)
4. Print and read these Instruction Sheets:
 - [Reading Assignment Instruction Sheet](#)
 - [Note-Taking Instruction Sheet](#)
 - [Practice Set Instruction Sheet](#)
 - [Quiz Instruction Sheet](#)
 - [Study for Exams Instruction Sheet](#)
5. Read: [The Timed Method](#)
6. Required Materials:
 - Select one: [Geometry App or a Ruler & Drawing Compass](#)
 - Select a [Recommended Calculator](#)
 - 2-inch binder and 3-hole paper (blank or college-ruled)
OR spiral notebook for lectures/ corrections and copy paper for homework
 - Small spiral notebook (4x6) for formulas
 - Computer or tablet with Internet access and headphones or speakers
7. Parents: Login to the eLearning Campus here [Login Instructions](#)

Important Resources

[Grade Changes and Resets](#)

[Advanced Placement](#)

[Ask Dr. Shormann a Homework, Test,
or Quiz Question](#)

[Transcripts & Credits](#)

[NCAA](#)

[Contact Tech Support](#)

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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.

After completing Shormann Calculus, students can spend 2-3 weeks using the included [CLEP Professor Calculus](#), a short prep course that specifically prepares for the CLEP or AP exam. A passing score on this exam can earn up to 4 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 so doing, 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!

Credits

1 Calculus 1 Credit

3-4 CLEP Calculus Credits*

*See CLEP Calculus below.

Pre-Requisites

Any of the below:

- Shormann Precalculus
- Saxon Advanced Math, Second Edition
- Any Other Publisher's Precalculus

REQUIRED: Read [Placement Info & Tests](#)

Course Description

Shormann Calculus covers all content found on both the CLEP Calculus Exam, and the AP Calculus AB Exam. Divided into 4 quarters of 20 lessons each, the first quarter provides a solid precalculus review, introduces fundamental calculus topics like limits, derivatives and integrals, and reviews many topics found on the ACT and SAT. The remainder of the course dives deep into calculus. As in all Shormann Math courses, our main goal is for students to strengthen their faith in Jesus and His word, developing a Christ-like humility and joy in their learning, using their education as a way to serve. Introduced in prior courses, Shormann Calculus in particular helps students see the radical truth that understanding math well requires a Hebrews 11:1 "reasonable faith." Since calculus is closely connected to the study of motion, students will solve hundreds of problems applying calculus to physics and engineering. Students are also introduced to differential equations and limit applications to infinite series. Students learn to use technology such as spreadsheets and graphing calculators to solve problems. When finished, students have a better understanding of God's Word and His works (Matthew 22:29). Also, they are well prepared for college-level Calculus II using Shormann Calculus II.

Along with the included [CLEP Professor](#) course, Shormann Calculus provides specific preparation for the CLEP Calculus and AP Calculus AB exam. Learn More: [When can I take a CLEP exam](#) [AP Exam FAQs](#)

Honors or Standard Course Options

Students who complete the course in a typical school year or less, and use the Honors Grading Scale, can list it as an honors course on their transcript. Or if the student earns a score of 50 or higher on the **CLEP Calculus Exam** (use [CLEP Prep Course](#)), Shormann Calculus can be listed as an honors course.

Honors Grade Scale

A – 93-100
 B – 84 – 92
 C – 74 – 83
 D – 65 – 73
 F – 64 or below
 I – Incomplete

Standard Grade Scale

A – 90 -100
 B – 80 – 89
 C – 70 – 79
 D – 60 – 69
 F – 59 or below
 I – Incomplete

Using Shormann Math in a Classroom or Co-op

The beta-test of Shormann Algebra 1 was performed with students in a weekly live online classroom. While we haven't used it yet in a daily classroom setting, we do know it works well in a homeschool co-op style class that meets weekly. Students complete their daily lessons at home, and come to class to ask questions, review the lessons covered that week, and turn in handwritten work + lecture notes. They can then take the online quiz, or take a different one administered by the teacher. At the end of each quarter, they can take the online quarterly exam, or take a different one administered by the teacher. For more information on starting a co-op class in your area, contact Dr. Shormann at drshormann@gmail.com.

Standardized Test Prep

The main purpose of *Shormann Math* is to help students use math to become more creative like their Creator, glorifying Him and serving others. However, it also provides excellent preparation for standardized tests. Although all the topics required to excel on college entrance exams are taught in Shormann Algebra 2, Shormann Calculus provides ample review of these concepts to ensure students maintain the fluency required to excel on these exams. [PSAT, SAT, and ACT Test Prep Recommendations](#)

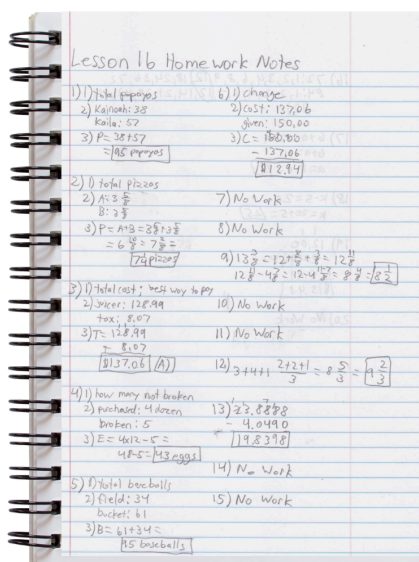
Parent Responsibilities

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:

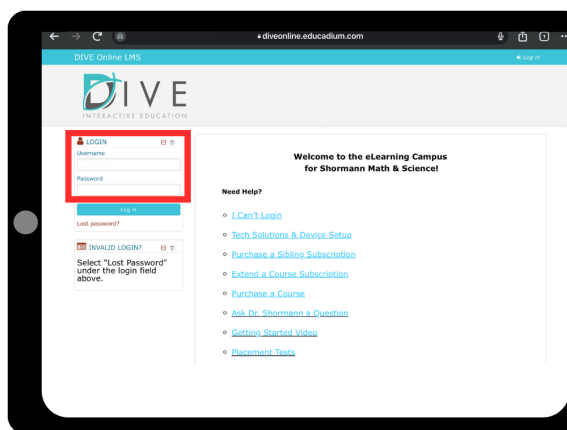
How to Check Student Work

I. Check the Lecture Notes

- 1 After each lesson is completed, have the student bring their notebook to you, which should have their notes and corrections.



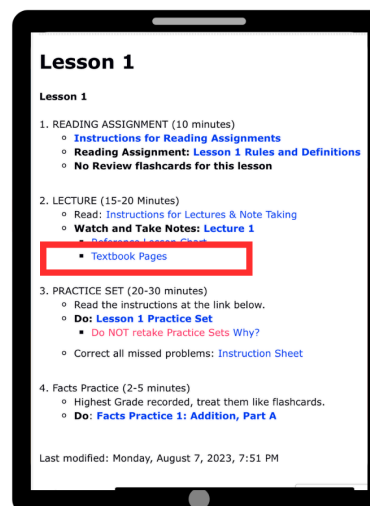
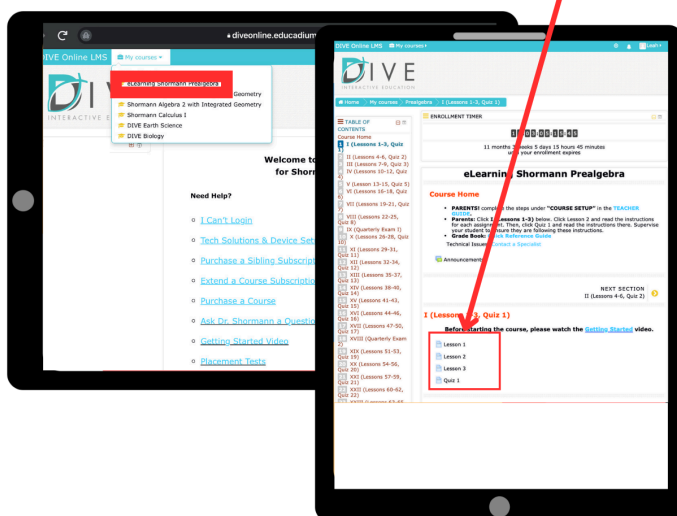
- 2 Go to diveonline.educadum.com. Login using the same login the student uses.



- 3 Place your cursor over "My Courses" then, select "Pre-Algebra".

- 4 In the right menu, select the Lesson #.

- 5 This opens the Assignment Page. Select "Textbook Pages".

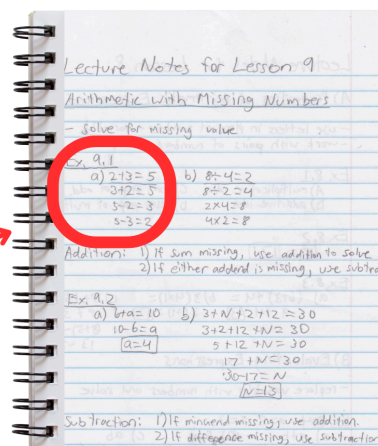
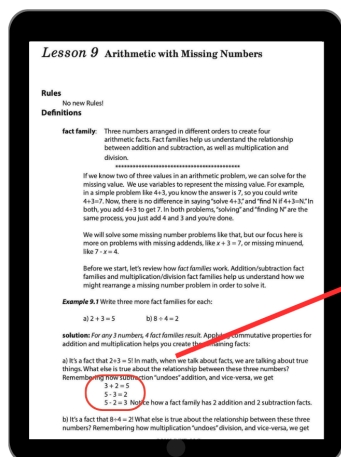




After each example problem is taught, students should **pause** the lecture & **solve** the example problem on their notes.

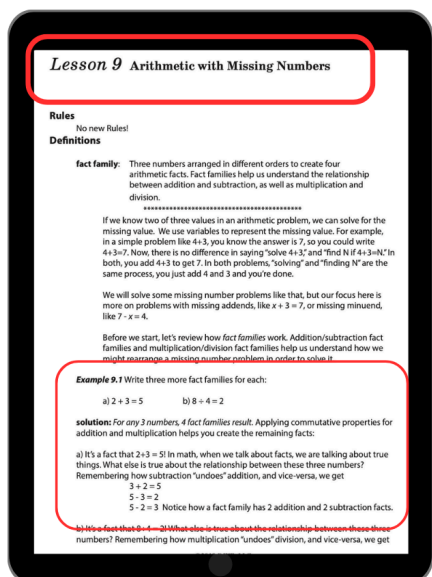
6

Briefly compare the example problems in the textbook pages to the example problem in the student's notes.



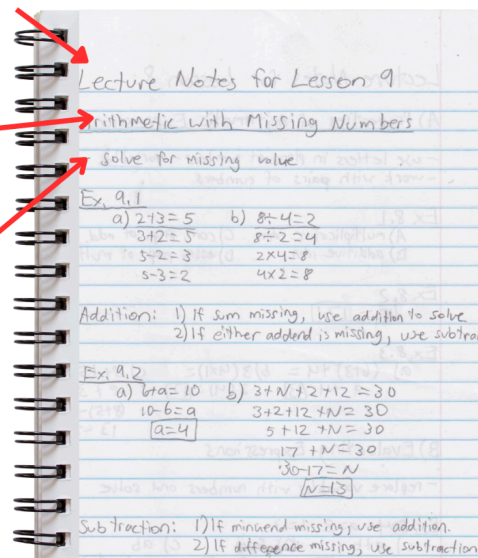
They should also take brief notes with the lesson title, headings, key points, and formulas.

✔ LESSON TITLE



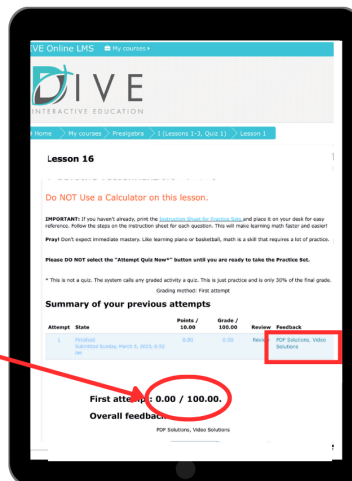
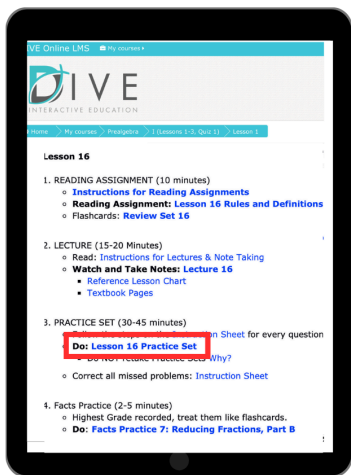
✔ HEADINGS

✔ KEY POINTS



II. Check the Practice Set

- Go back to the Assignment page then, select the link to the Practice Set.
- Select the link to the "PDF Solutions". If you don't see it, read the note below.



Disregard the grade here. It will be explained in the next step.

Summary of your previous attempts

Attempt	State	Points / 20.00	Grade / 100.00
1	In progress		

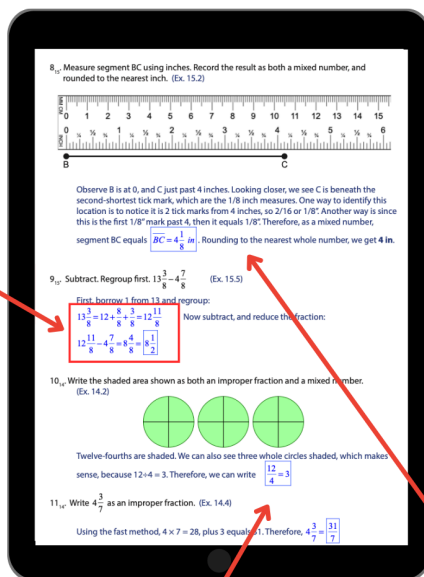
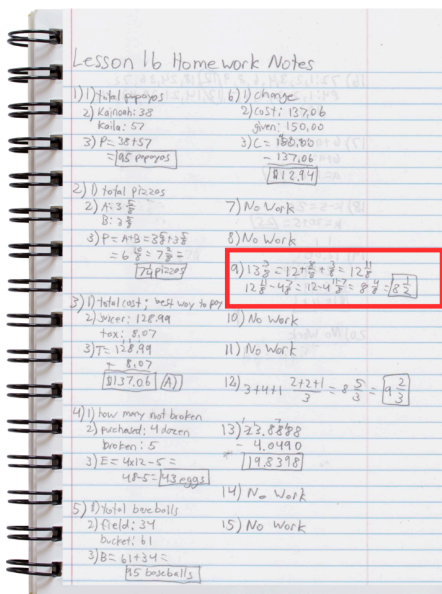
[Continue the last attempt](#)

If you see this instead of the PDF solutions link, stop here and refer to #1 in the "Solutions" section.



Before entering or selecting an answer, students should solve each math problem on their Practice Set Notes.

- Briefly compare the PDF Solutions to the student's notes.



If the student does not show work, they may be guessing. Make notes on their paper, finish the remaining steps, then discuss it with the student. Also, see #3 in the "Issues" section.

Questions like #10, are simple calculations that don't require showing work.

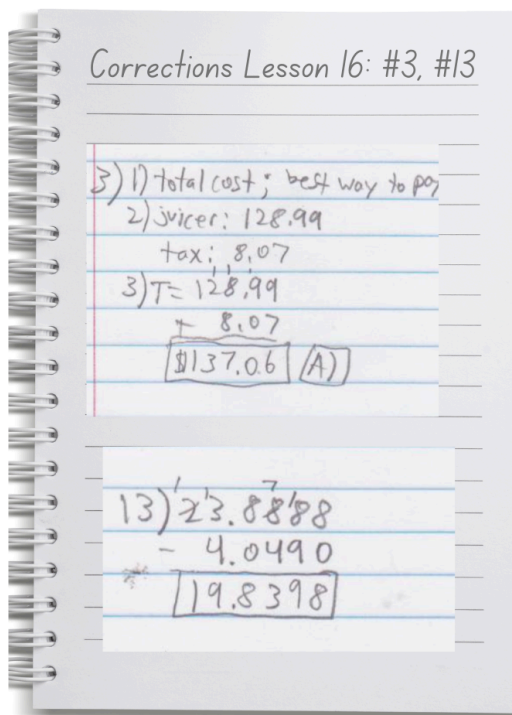
Some questions, like #8, don't require a calculation.

III. Check the Corrections

After completing the Practice Set, students should **watch the video solutions for each question marked wrong then, solve it correctly on their notes.**

- 1 Compare the corrections on the student's notes to the Solutions PDF

- 2 Did the student solve each incorrect problem on their "Corrections" page?



Lesson 16 Solutions

Practice Set 16

1_w Kainoah picked 38 papayas and Kaila picked 57. Find the total number of papayas Kainoah and Kaila picked. (Ex. 16.1)

Follow the 3 steps in the Rules:

- 1) What are you solving for? You are solving for the total number of papayas picked.
- 2) What do you know? You know Kainoah picked 38, and Kaila picked 57.
- 3) A key phrase is *find the total*, which directs us to create an addition equation with a missing sum:

$$N = 38 + 57 \quad \text{Write it vertically and solve: } \begin{array}{r} 38 \\ + 57 \\ \hline 95 \end{array}$$

2_w Team A and B both ate $3\frac{5}{8}$ large pizzas. How many pizzas did team A and B consume altogether? (Ex. 16.2)

Follow the 3 steps in the Rules:

- 1) What are you solving for? You are solving for the total number of pizzas eaten by Teams A and B.
- 2) What do you know? You know both teams ate the same amount of pizza.
- 3) The total number of pizzas consumed is unknown, and from the key words, we can tell we just need to add the two pizza amounts together:

$$3\frac{5}{8} + 3\frac{5}{8} = 6\frac{5+5}{8} = 6\frac{10}{8} = 7\frac{2}{8}$$

$$6 + \frac{8}{8} + \frac{2}{8} = 7 + \frac{2}{8} = 7\frac{1}{4} \text{ pizzas}$$

3_w Bubba bought a juicer for \$128.99. Sales tax was \$8.07. Altogether, how much did Bubba pay? Which of the following is the best way to pay with cash? (Ex. 16.3)

- A) One \$100, and one \$50.
- B) Two \$100s.
- C) One \$100 and one \$20.
- D) One \$50 and three \$20s.

Many purchases require you to pay sales tax, which is added to the sale price of an item. Follow the 3 steps in the Rules:

- 1) What are you solving for? You are solving for how much Bubba paid altogether, and how to pay in cash.
- 2) What do you know? You know the juicer cost \$128.99, and sales tax = \$8.07.

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ISSUES WITH STUDENT WORK

Issue #1: Continue Last Attempt

Summary of your previous attempts

Attempt	State	Points / 20.00	Grade / 100.00
1	In progress		

[Continue the last attempt](#)

Do you see this instead of a link to the PDF solutions?

This means the student either did not finish the assignment or they forgot to select the "Submit All & Finish" button.

If the student DID answer all the questions he could, simply click the "Continue Last Attempt" button to submit the assignment. Then, have the student follow the steps on page 2 of the "Instruction Sheet for Practice Sets" to watch the video solutions for missed problems and correct them on paper.

If the student DID NOT answer all the questions he could, he should finish the assignment by following the steps on the "Instruction Sheet for Practice Sets" to answer all the questions he can and submit it. Then, follow the steps on page 2 of the "Instruction Sheet for Practice Sets" to watch the video solutions for missed problems and correct them on paper.

Issue #2: More than one attempt is listed.

The eLearning course allows students to re-take practice sets to study for exams. But, only the first attempt is recorded in the online grade book.

Because the student sees all the answers after the first attempt, we recommend you use only the first attempt when checking the student's work.

IMPORTANT: If you haven't already, print (or open in a new window) and follow the steps on this sheet: [Instruction Sheet for Practice Sets](#)

The Instruction Sheet has important instructions on how to use help links, access the video solutions, ask Dr. Shormann a question, and more!

Low or Falling Grade: Do NOT retake Practice Sets. Instead, watch the video solutions and correct as instructed in #6 on the Instruction Sheet.

When you are ready to start, select "Attempt Quiz Now".
Note: This is not a quiz. The system calls all graded activities a quiz.
Grading method: First attempt

Summary of your previous attempts

Attempt	State	Points / 11.00	Grade / 100.00	Review
1	Finished Submitted Saturday, October 10, 2020, 9:13 AM	0.00	0.00	Review
2	Finished Submitted Friday, October 16, 2020, 5:33 PM	5.00	45.45	Review

First attempt: 65.00 / 100.00.
Your final grade from this activity was manually adjusted.

[Continue the last attempt](#)

Important: Please Read This Page

Scheduling

Shormann Calculus is set up on a 30 week schedule. Since a normal school year is generally 36 weeks, there are six additional weeks that can be used, as needed, to relearn a forgotten concept or grasp a new concept. A good way to ensure the student has time to relearn, as needed, is to use the timed method (below).

Fluency = Accuracy + Speed

Math is a language. It is the language of science, a tool used to discover, analyze, and understand God and the world He created. Like reading or speaking a language, fluency is required to use math to communicate and learn. While the main focus of most math curricula is simply accuracy, fluency goes a step further, continuing to practice the skill for a long period of time, developing fluency. Like reading, math fluency is required to fully understand and apply it to new situations like science or questions on a standardized test.

Timed Method: Frustration Free Math

Instead of requiring the student to complete a lesson each day, have Calculus students work on math for no more than an hour to an hour and a half per day. At the end of this time, regardless of how much of the lesson is completed, stop the lesson and have them pick-up where they left off the next day. Strong math students can work on math at least 4 days per week and struggling or reluctant math students should work on math 5 days per week.

This allows the student to learn at their own pace, giving them the extra time needed to grasp a new concept or relearn forgotten concepts by rewatching video lessons, studying the help links, etc. On the other hand, when a student is required to complete a lesson per day, they quickly realize that going back and relearning can make the lesson take too long 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. [Frustration Free Learning](#)

The Timed Method: The key to developing mastery and fluency.

The [timed method](#) is part of an efficient system Dr. Shormann created while teaching Saxon Math to hundreds of thousands of homeschool students over the past 20 years. This system is designed to ensure all students succeed in math by allowing them to **learn at their own pace**. It is widely accepted that students who learn at their own pace achieve higher levels of learning, building mastery and fluency without frustrating or overwhelming them. While strong math students will go further, often completing Calculus in 11th grade, average or remedial math students may take longer and only complete Algebra 2 or Precalculus in high school. That's okay! The important thing is that they understand what they have learned. However, we often see reluctant or struggling math students who use the [timed method](#) become very strong math students.

If I use the timed method, how will my student finish on time?

The [timed method](#) usually has the opposite effect of what parents expect. Once the student knows that they only have to work on math for the specified amount of time, they are free to focus on learning instead of wondering, "how long is this going to take?". If they are stuck on a problem, they are more likely to relearn by watching the linked video lecture because they know that no matter how many times they do this, it will not make their math lesson longer. It may take a few weeks, but as they start to build mastery and then fluency, learning math will become faster and easier. Keep in mind, Shormann Algebra 1 & Algebra 2 each earn 1.5 credits. Therefore, students can take up to three semesters to complete each course. [Learn more](#).

Earn 14 College Credits

Shormann Algebra 2, Precalculus, and Calculus provide specific preparation for select CLEP and AP exams. If a passing score is earned on these exams, an additional high school math credit can be listed on the high school transcript.

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.

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. In the beginning this process may be slow and laborious. Be patient, use the [timed method](#), and eventually math will be faster and easier.

Course Components

- I. **Lessons:** A daily lesson consists of 3 parts:
 - **Reading Assignments (Rules and Definitions):** [Instruction Sheet](#)
 - **Video Lecture:** [Instructions for Lectures](#)
 - **Practice Set:** [Practice Set Instructions](#)

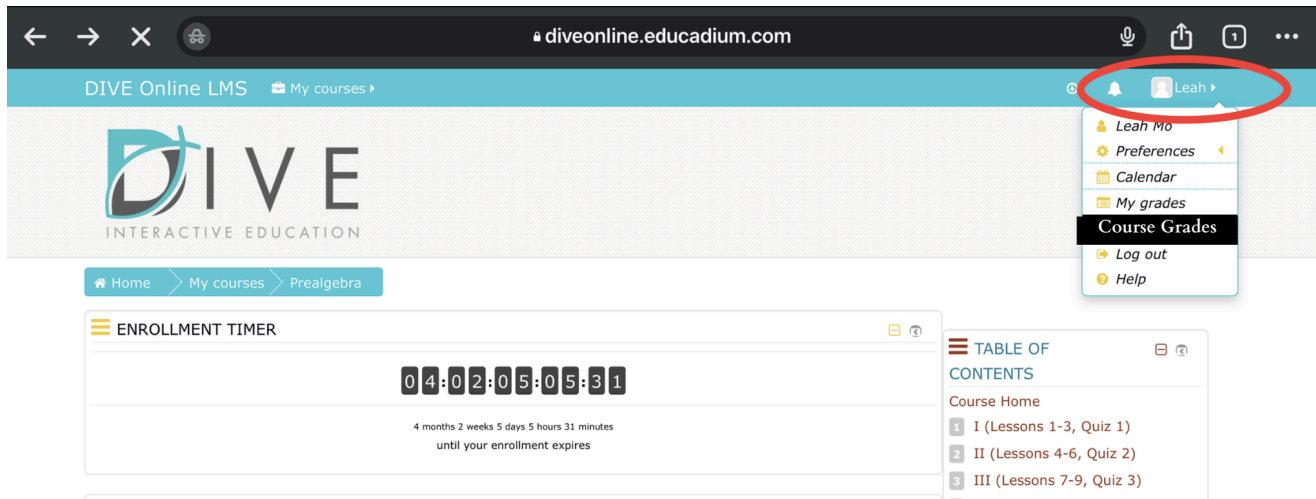
- II. **Quizzes:** [Quiz Instruction Sheet](#)

- III. **Quarterly Exams:** [Quarterly Exams Instruction Sheet](#)

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.), 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. In the top right corner, select the student’s name, then “Course Grades”.



2. The grade book will open.

Grade Book: Joe Smith

Assignments	Your Student's Grades		Average Grade of All Students in this Course
	Grade	Percentage	
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.

Assignments	Grade	Percentage	Class Average
✓ Practice Exam 4.1	-	-	93.14
✓ Practice Exam 4.2	-	-	94.20
✓ Quarterly Exam 4	-	-	87.22
Σ Shormann Algebra 1 Running Average	1957.57	86.62 %	4596.11
Final Grade Simple weighted mean of grades. Include empty grades.	11.29	11.29 %	37.21

Running Average - Only Completed Assignments

Final Grade

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 the solutions 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 [Transcripts & Credits](#)

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 not 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 grading system 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 curriculum, like Abeka or Bob Jones.

If your student corrected missed problems for all assignments, extra credit can be added at the end of the course by following the option below. However, this is optional because the eLearning system already includes some extra credit by allowing students to take the exams twice and averaging the scores which is like adding up to 10 points to each exam grade.

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.

After determining the final grade, add it to the Certificate (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. However, you will need to manually record grades or use the “Simplified Grading Method” (see above) instead of using the online grade book.

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. 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 two scores together.
4. Have the student correct missed problems by following the Quiz Instructions linked above the quiz.
5. Use the [“Simplified Grading Method”](#) below.

Exams: How to Modify the Time

Parent Supervision Required: The exams are limited to one hour. This method doubles the time to two hours.

1. Study using the Study Instructions linked just above the exam.
2. 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. If they correct all missed problems, **add 100 points to their grade**. Then, divide it by two. This is the equivalent of giving them two full attempts and averaging the scores.
5. For grade recording and calculating a final grade, see the next section below.

Grading for Learning Challenged Students

Because students with learning challenges often require many accommodations, instead of using the grades in the eLearning course and submitting multiple grade change requests, manually record the four exams, then use the Simplified Grading Method to calculate the final grade.

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, use this simple method to give a completion grade of 90 for all Facts Practice, Quizzes, Practice Sets. This way, you don't need to submit multiple grade change requests or manually record all the scores. All you need is the average of the four exam grades to put in the formula below. This new grade can be added to the Certificate.

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!

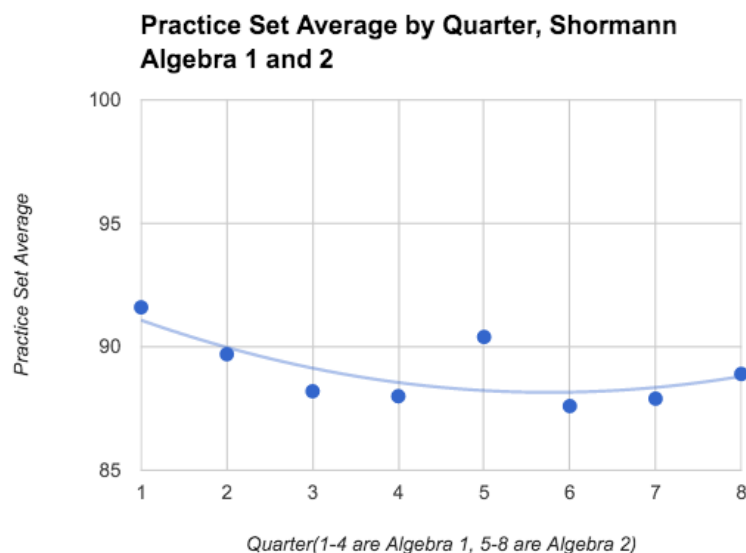
Results matter because they reveal whether or not a new product really works. And while statistics certainly don’t reveal everything about a new product, they can certainly reveal many things. **Most publishers don’t provide any details of student performance.** Shormann Math is different, and we are thrilled we can provide the public with the following statistics to help you make informed decisions.

Overall performance(Algebra 1)

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

Discussion: 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



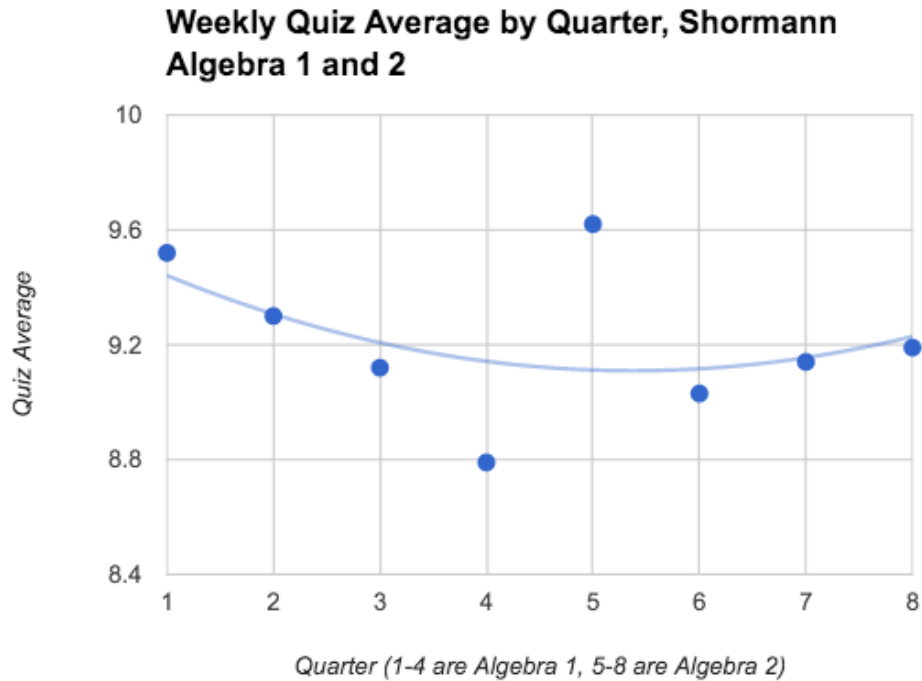
Discussion: You've probably never seen statistics on student performance in a math class before, which is why it is important to discuss the data! We had hoped the average student would achieve a Practice Set average above 85%, and that was achieved in all 8 quarters! 85% is a good cutoff for determining whether students are understanding, and retaining most of the concepts learned.

Note also the high first quarter average in both Algebra 1 (Quarter 1) and Algebra 2 (Quarter 5). Because Shormann Math is built on John Saxon's method of integrating geometry and algebra, students using Saxon Math 8/7 or Saxon Algebra $\frac{1}{2}$ will be most comfortable starting Shormann Algebra 1. However, not all beta-test students used Saxon previously, and not all Shormann Algebra 2 students used Shormann Algebra 1 (most used Saxon). Therefore, the high first quarter averages are a good indication that students who successfully completed any pre-algebra course should do just fine in Shormann Math, and non-Shormann Math Algebra 1 students can succeed in Shormann Algebra 2.

Finally, in the trendline shown, notice the dip in the middle of both courses. This seems like a natural pattern if you consider the facts that, during this time,

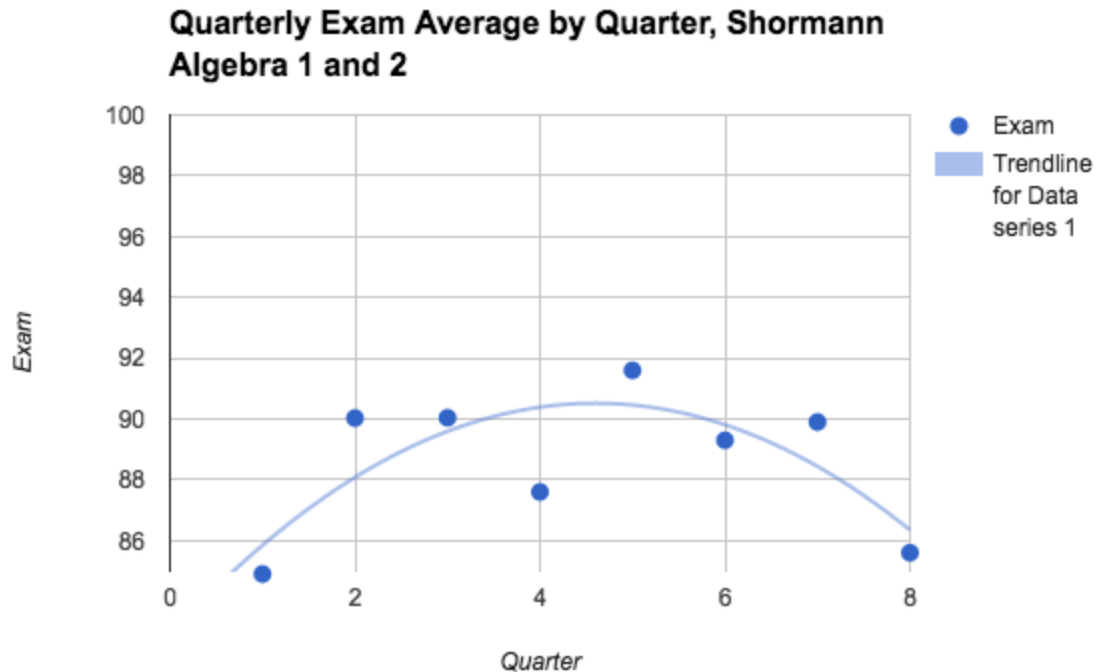
1. Young students are being exposed to new and increasingly complex concepts.
2. As time progresses, students mature and begin to learn what it takes to study, and retain, increasingly complex concepts.
3. Becoming proficient at a subject takes time, so don't quit too soon if it seems challenging! Completing Shormann Algebra 1 and 2 also includes a geometry credit, so if you are doing the self-paced option, it's perfectly fine to spread this out over 12 quarters (3 years) instead of 2.

Weekly Quizzes



Discussion: Weekly Quizzes show a similar trend to the Practice Sets, which affirms what we discussed in 1-3 above. 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 eight quarters!

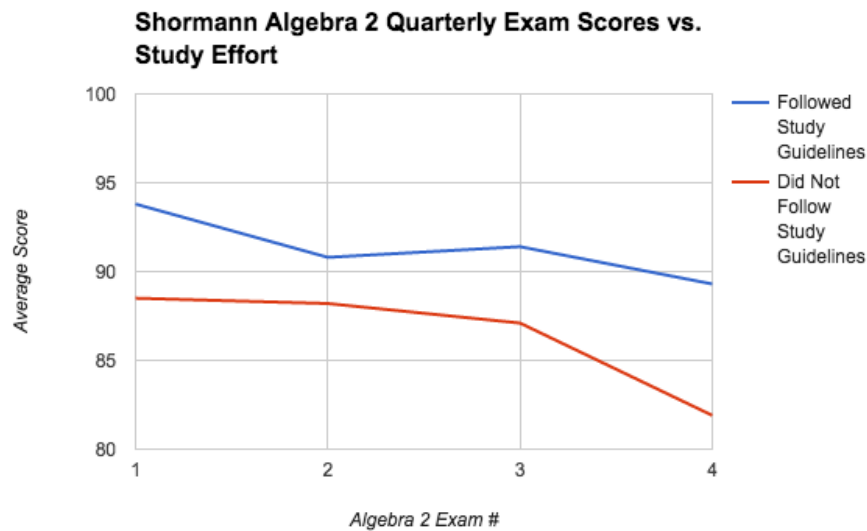
Quarterly Exams



Discussion: The trend for quarterly exams is not the same for Practice Sets and Weekly Quizzes, as the trend is for maximum scores in the 5th Quarter, which is the introductory quarter of Algebra 2. One of the big reasons for this trend has to do with not giving the students enough practice prior to Quarterly Exam 1 in Algebra 1. This is one reason we beta-tested the course prior to releasing it to the general public, so we could make any adjustments we believed were necessary. After Exam 1, we started providing students with two practice exams, and afterwards, all quarterly exam averages improved.

Another big reason for the trend is that not all students took advantage of the practice exams, and/or did not follow instructions for studying. On the week of a quarterly exam, students are given study tips. **The main thing students need to do is practice, as there is simply no substitute to success in mathematics, or pretty much anything else you want to be good at, than to practice. A lot.**

Two key steps in properly studying include 1) retake all Weekly Quizzes and 2) complete both Practice Exams. Because our eLearning campus provides detailed information on each student's Quiz and Practice Exam attempts, I was able to determine which students studied properly (completed both 1) and 2) above) from those who did not (completed either 1) or 2) or neither). Results are shown below for the beta-test students in Shormann Algebra 2.



The conclusion from the above graph is obvious: students who study harder do better in Shormann Math! Students who followed the study guidelines averaged at or well above 90% (A), while students who did not follow the guidelines averaged below 90% (B). The results also show that Shormann Math is providing the tools students need to become fluent in mathematics.

Finally, 85%+ is an indicator of good retention and understanding of concepts covered in a quarter. For all 8 quarters, student averages shown in the Quarterly Exam Average by Quarter chart 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 in the beta courses responded very well!

Keep in mind, too, that these students did the "high performance level" version of Shormann Math, where the course is completed in 30 weeks (37 weeks if you count the breaks), and they did not have as much time to complete the quizzes or quarterly exams. In the standard course, students have 5 extra minutes per quiz, and 15 minutes extra on quarterly exams. You also receive a 2-year subscription per course, almost 3 times more time than beta-test students were allowed.

Scope & Sequence

Shormann Calculus I

To jump to the sequence: [Course Sequence](#)

Scope

Number
Defining Mathematics
History of Number
Permutations and Combinations
Operations with whole number exponents
Operations with fractional exponents
Operations with scientific notation
Logarithm means exponent
Subsets of Real Numbers
Set notation
Complex numbers
Operations with complex numbers
Absolute value
Counting problems, including permutations and combinations
Special number types, including binary
Ratio (including proportional relationships)
Rational and irrational numbers
Rational and radical equations
Logarithms as "ratio numbers"
Direct and inverse variation
Product rule for logarithms
Quotient rule for logarithms
Power rule for logarithms
Proportion and the Christian adventure
Rate and Ratio word problems
Simplifying complex fractions
Similarity and scaling
Algebra (including algebra of functions)
History of Algebra
Algebra fundamentals review
Combined operations with logarithms

Quadratic formula
Finding domain and range from functions
Operations with functions
Symbolic transformations of functions
Evaluating functions
Composite functions
Operations with polynomials
Operations with exponents
Operations with logarithms
Linear equations
Quadratic equations
Absolute Value equations
Polynomial equations
Polynomial division
Synthetic division and the remainder theorem
Synthetic division and the factor theorem
Rational equations
Radical equations
Exponential equations
Logarithmic equations
Linear systems of equations x
Non-linear systems of equations
Word problems and systems of equations(value, uniform motion, etc.)
Partial fractions
Geometry (Including Logic)
History of Geometry
Geometry Fundamentals Review
Geometry in 3D design
Euclid, axioms and postulates
Euclid, theorems, proofs
Triangle similarity
Triangle congruency
Triangle proofs
Circle relationships
Non-Euclidean Geometry
Pythagorean theorem
Logic fundamentals

Syllogisms

Analytical Geometry (including graphical forms of functions)

History of Analytical Geometry

Analytical geometry fundamentals review

Linear equations

Functions and relations

Modeling functions review

Finding domain and range from graphs

Finding x-intercepts (roots) of polynomial functions (equations), with and without a graphing calculator

Finding extrema from graphs (with and without graphing calculator)

Finding inverse functions

Graphing functions

Complex roots

Conics, including parabolas, circles, ellipses and hyperbolas

Locus definitions for conics

Even and odd functions

Finding poles and zeros

Inverse functions

Graphical representation of functions, including linear, nonlinear, and piecewise defined

Graphical transformation of functions, including linear, nonlinear, and piecewise defined

Linear system word problems (graphical forms)

Nonlinear system word problems, with and without graphing calculator

Exponential growth and decay word problems

Measurement

History of measurement

Why standards matter

Rate conversions

Length conversions

Area conversions

Volume conversions

Currency (money) conversions

Special conversions, like finding cost per part

Evaluating scientific formulas, including gas laws

Interest rate, savings, and debt, and what the Bible has to say about it

Trigonometry

Trigonometry and right triangle basics

Trigonometry and Unit Circle Basics

Inverse trig functions
Reciprocal trig functions
Composite trig functions
Products of complex numbers
DeMoivre's theorem, Euler's formula, and complex roots
Parallelogram law
Polar coordinates and conversion to rectangular, and vice-versa
Vectors
Resultant vectors
Resultant vectors, force applications
Trigonometric equations
Graphing Trig functions
Transformations of Trig functions
Basic Trig. Identities
Sum and Difference Trig. Identities
Half and Double angle Trig Identities
Periodicity
Trig functions as models
Using Trig to find area of inscribed regular polygons and connection to finding integrals
Calculus
History of Calculus
Calculus and the Trinity
To understand calculus, just believe
Limits of simple continuous and discontinuous functions
Limits that use operations with functions like $f(x)$ and $g(x)$
Limits of rational polynomial functions
Infinity as a limit
Special limits
Limits with special properties, like $ x /x$, $(\sin x)/x$, $\sin(1/x)$, etc.
Limit definitions of fundamental derivatives
Limit definition of an integral
Calculus is about rates of change
Particle velocity and acceleration
Average and instantaneous rates
Derivative means slope
Slope at a point
Derivatives of polynomials

Derivatives of more types of elementary functions
Using derivatives to find equations of tangent lines
Derivative applications, including finding extrema
Differentiability
Higher order derivatives, like 2nd, 3rd, etc.
Derivatives of sums and differences
Product and quotient rules for derivatives, with proofs
Differentials
Implicit differentiation
Chain Rule for derivatives, including use with composite functions
Related rates
Critical numbers(including the critical number theorem)
Critical number applications
First derivative test
2nd derivative test
Functions of f , f' , and f''
Mean Value Theorem for derivatives
L'Hopital's Rule
Extreme value problems
Derivatives of inverse functions
Linear approximation
Newton's method
Integrals and estimating area by counting squares
Integrals and estimating area using upper rectangles
Integrals and antiderivatives
The indefinite integral
Integration by u-substitution
Rolle's Theorem
Antiderivatives and position functions
Antiderivatives and growth and decay
Integration by parts
Using trig identities to simplify integrals
Riemann sums
Definite integrals as sums of infinite series
Fundamental theorem of calculus
Definite integrals and the fundamental theorem of calculus (basic forms)
Definite integrals of sums and differences
Integration by change of variable

Integral of a derivative
Derivative of an integral
Solids of revolution, including disk method, shell method, and washer method
Interval properties of definite integrals
Discontinuous, but integrable functions
Mean value theorem for integrals
Bounded areas
Area and solving integrals
Separable differential equations
Differential equations and slope fields
Statistics
One-variable data and the normal distribution, histograms
Mean, median, mode and range
Standard deviation
Linear and nonlinear regressions
Computer Mathematics
Sequences
Series
Infinite Series
Resolving fractions into infinite series
Deriving formulas for infinite series
Sums
Partial sums of infinite series
Converging and diverging infinite series
Absolute convergence
Conditional convergence
Alternating series test
Comparison test for absolute convergence
Other tests for convergence(integral test, limit comparison test, ratio test, root test)
p-Series applications
Power series
Pascal's triangle
Binomial Theorem
Recurrence problems

Shormann Calculus 1 Course Sequence

Lesson	
1	Number: What is Mathematics? - A Brief History of Number - Number Sets and Set Notation - Special Number Types, Exponents: Reference: Shormann Precalculus, Lessons 1, 9
2	Ratio: Ratio, Proportion, and the Christian Adventure - Rational and Irrational Numbers - Simplifying Fractions - Logarithms (Ratio Numbers) - Rate and Ratio Word Problems - Similarity and Scaling: Reference: Shormann Precalculus, Lessons 2, 27 Shormann Algebra 1, Lesson 6
3	Algebra I: Expanding and Simplifying Expressions - Factoring and Canceling - Synthetic Division and the Factor Theorem - Logarithms: Reference: Shormann Precalculus, Lessons 3, 26, 28, 30
Week 1 Quiz	
4	Algebra II: Linear Equations - Systems of Linear Equations - Rational Equations - Word Problems: Reference: Shormann Precalculus, Lessons 4, 11, 32
5	Algebra III: Quadratic Equations - Absolute Value Equations - Radical Equations (Square root) - Exponential and Logarithmic Equations: Reference: Shormann Precalculus, Lessons 5, 27, 28, 31
6	Geometry I: Geometry Fundamentals - Similar Triangles - Geometry in 3D Design - Non-Euclidean Geometry: Reference: Shormann Precalculus, Lesson 6, 99
Week 2 Quiz	
7	Geometry II: Logic Fundamentals - Proof - Circle Relationships - Syllogisms: Reference: Shormann Precalculus, Lessons 7, 8
8	Analytical Geometry I: Identifying Functions - Evaluating Functions - Operations with Functions - Domain and Range: Reference: Shormann Precalculus, Lessons 9, 34, 39
9	Analytical Geometry II: Evaluating Degree 3+ Polynomial Functions - Finding x-intercepts with a Graphing Calculator - Nonlinear Systems - Linear and Nonlinear System Word Problems - Exponential Growth and Decay Word Problems: Reference: Shormann Precalculus, Lessons 11, 12, 13, 27, 28, 29
Week 3 Quiz	
10	Analytical Geometry III: Piecewise Functions - Transformation of Functions - Locus Definitions of Conics - Poles and Zeros: Reference: Shormann Precalculus, Lessons 9, 13, 37, 42, 45, 46, 49, 55, 64, 73, 74

11	Analytical Geometry IV: Inverse Functions - Modeling Functions Review - Identifying Extrema: Reference: Shormann Precalculus, Lessons 9, 13, 35, 36, 43, 52, 56, 61, 63, 66, 67, 70
12	Measurement I: Why Standards Matter - Unit Conversions - Arc Lengths and Sectors: Reference: Shormann Precalculus, Lesson 14
	Week 4 Quiz
13	Measurement II: Perimeter, Area, Surface Area and Volume - Interest Rate, Savings, and Debt - Evaluating Scientific Formulas: Reference: Shormann Precalculus, Lesson 14, 15, 83, 84, 89
14	Trigonometry I: Trig Fundamentals - Graphing Trig Functions - Trig Identities: Reference: Shormann Precalculus, Lesson 16, 17, 18, 68, 69, 81, 82
15	Trigonometry II: Solving Trig Equations - Solving Problems with Inverse and Reciprocal Trig Functions - Composite Trig Functions: Reference: Shormann Precalculus, Lesson 16, 17, 33, 34, 38, 68, 71, 80
	Week 5 Quiz
16	Trigonometry III: Resultant Vectors - Trig and Complex Numbers - Trig Applications: Reference: Shormann Precalculus, Lesson 17, 18, 32, 34, 54, 57, 76
17	Calculus I: Calculus and the Trinity - Properties of Limits - Finding Limits: Reference: Shormann Precalculus, Lesson 19
18	Calculus II: Calculus is About Rates of Change - Derivative Means Slope - Derivative of $f(x) = x^2$ - : Reference: Shormann Precalculus, Lesson 20
	Week 6 Quiz
19	Calculus III: To Understand Calculus, Just Believe - Estimating Area by Counting Squares - Estimating Area Using Upper Sums: Reference: Shormann Precalculus, Lesson 21, 88
20	Calculus IV: Limits Approaching Infinity - Limit Definitions of Common Derivatives - Derivative Applications of $f(x)=ax^n$: Reference: Shormann Precalculus, Lessons 21, 58
	Week 7 Quiz
	Exam 1
21	Calculus V: Differentiability - Derivatives of Sums and Differences - Higher Order Derivatives: Reference: Shormann Precalculus, Lessons 71, 91, 94
22	Statistics: Measures of Central Tendency - Regression Analysis: Reference: Shormann Precalculus, Lessons 22, 23, 30, 36, 56, 67

23	Computer Mathematics I: Sequences - Series - Sums - Infinite Series: Reference: Shormann Precalculus, Lesson 25
	Week 9 Quiz
24	Computer Mathematics II: Resolving Fractions into Infinite Series - Deriving Formulas for Infinite Series: Reference: Shormann Precalculus, Lesson 51, 90
25	Computer Mathematics III: Partial Sums of Infinite Series - Converging and Diverging Infinite Series - p-Series Applications: Reference: Shormann Precalculus, Lessons 2, 25 Shormann Calculus, Lessons 23, 24
26	Derivatives of Products; Limits with Special Properties: Reference: Shormann Precalculus, Lesson 95; Shormann Calculus, Lessons 17, 18, 20, 21
	Week 10 Quiz
27	Derivatives of Quotients: Reference: Shormann Precalculus Lesson 96; Shormann Calculus Lesson 26
28	Derivatives of More Types of Elementary Functions: Reference: Shormann Calculus, Lessons 21, 26, 27
29	Differentials; Derivatives of Composite Functions I: Reference: Shormann Calculus, Lessons 8, 12, 17, 18, 21, 26, 27
30	The Antiderivative: Reference: Shormann Calculus, Lessons 19, 20, 29
	Week 11 Quiz
31	Related Rates I: Reference: Shormann Calculus, Lessons 6, 8, 12, 29; Shormann Precalculus, Lesson 97
32	Critical Numbers: Reference: Shormann Calculus, Lessons 11, 21
33	The Indefinite Integral: Reference: Shormann Calculus, Lessons 19, 30
34	Using 1st Derivatives to Find Maxima and Minima: Reference: Shormann Calculus, Lessons 11, 32; Shormann Precalculus, Lesson 98
	Week 12 Quiz
35	Riemann Sums I: Reference: Shormann Calculus, Lessons 18, 19, 25, 29, 30
36	Riemann Sums II: Limit Definition of an Integral: Reference: Shormann Calculus, Lessons 19, 35
37	Implicit Differentiation: Reference: Shormann Calculus, Lessons 8, 21, 29
	Week 13 Quiz

38	The 2nd Derivative Test: Reference: Shormann Calculus, Lessons 11, 21, 32, 34
39	Functions of f , f' and f'' , Part I of II; Mean Value Theorem: Reference: Shormann Calculus, Lessons 21, 30, 32, 34, 38
40	Definite Integrals as Sums of Infinite Series: Reference: Shormann Calculus, Lessons 19, 23, 30, 33, 35, 36; Shormann Precalculus, Lesson 90
	Week 14 Quiz
	Exam 2
41	L'Hôpital's Rule: Reference: Shormann Calculus, Lesson 17, 26
42	Extreme Value Problems I: Reference: Shormann Calculus, Lessons 13, 32, 34
43	Definite Integrals and the Fundamental Theorem of Calculus (basic forms): Reference: Shormann Calculus, Lessons 19, 23, 30, 33, 35, 36, 39, 40; Shormann Precalculus, Lesson 100
	Week 16 Quiz
44	More on Slope at a Point and Tangent Lines: Reference: Shormann Calculus, Lessons 18, 20, 37, 39
45	Definite Integrals of Sums and Differences: Reference: Shormann Calculus, Lessons 33, 43
46	Derivatives of Inverse Functions I: Reference: Shormann Calculus, Lessons 11, 37
	Week 17 Quiz
47	Critical Number Applications I: Reference: Shormann Calculus, Lessons 32, 34, 38
48	More on Particle Velocity and Acceleration: Reference: Shormann Calculus, Lessons 11, 18, 20, 21, 34, 39
49	Derivatives of Inverse Functions II: Reference: Shormann Calculus, Lessons 14, 15, 37, 46
	Week 18 Quiz
50	Integration by u-Substitution: Reference: Shormann Calculus, Lessons 28, 29, 30, 33
51	Derivatives of Composite Functions II: Reference: Shormann Calculus, Lessons 28, 29
52	Average and Instantaneous Rates: Reference: Shormann Calculus, Lessons 21, 39, 48
	Week 19 Quiz
53	Rolle's Theorem; Antiderivatives and Position Functions I: Reference: Shormann Calculus, Lessons 18, 19, 20, 21, 39, 48

54	Functions of f , f' , and f'' II: Reference: Shormann Calculus, Lessons 21, 30, 39
55	Integration by Change of Variable: Reference: Shormann Calculus, Lessons 43, 45, 50
	Week 20 Quiz
56	Critical Number Applications II: Reference: Shormann Calculus, Lessons 21, 32, 34, 38, 47
57	Antiderivatives and Position Functions II: Reference: Shormann Calculus, Lessons 19, 52, 53
58	Related Rates II: Reference: Shormann Calculus, Lesson 31; Shormann Precalculus, Lesson 99
	Week 21 Quiz
59	Integral of a Derivative: Reference: Shormann Calculus, Lessons 30, 35, 36, 43, 53, 57
60	Solids of Revolution I: Disk Method: Reference: Shormann Calculus, Lessons 13, 19, 35, 36, 40, 53, 57, 58
	Week 22 Quiz
	Exam 3
61	Interval Properties of Definite Integrals; Discontinuous but Integrable Functions: Reference: Shormann Calculus, Lessons 21, 26, 40, 43, 45
62	Applications of the Definite Integral I: Average Value: Reference: Shormann Calculus, Lessons 30, 33, 39, 43, 53, 57
63	Integration by Parts; Bounded Areas: Reference: Shormann Calculus, Lessons 26, 29, 45, 50, 61
	Week 24 Quiz
64	Applications of the Definite Integral II: Area and Solving Integrals: Reference: Shormann Calculus, Lessons 50, 55, 61, 62
65	Using Trig Identities to Simplify Integrals: Reference: Shormann Calculus, Lessons 14, 50, 64
66	Solids of Revolution II: Washer Method: Reference: Shormann Calculus, Lessons 60, 63
67	Differential Equations I: Separable Differential Equations: Reference: Shormann Calculus, Lessons 9, 29, 30, 33, 37, 43, 63
	Week 25 Quiz
68	Linear Approximation; Antiderivatives and Growth and Decay: Reference: Shormann

	Calculus, Lessons 18, 29, 67
69	Derivative of an Integral: Reference: Shormann Calculus, Lessons 19, 43, 59, 68
70	Extreme Value Problems II: Shormann Calculus, Lessons 13, 42
71	Applications of the Definite Integral III: Area and Solving Integrals: Reference: Shormann Calculus, Lessons 49, 62, 64
	Week 26 Quiz
72	Newton's Method for Approximating Zeros: Reference: Shormann Calculus, Lessons 18, 44, 47, 68
73	Solids of Revolution III: Shell Method: Reference: Shormann Calculus, Lessons 60, 66
74	Differential Equations II: Slope Fields: Reference: Shormann Calculus, Lesson 67
	Week 27 Quiz
75	Volume: Area = Base: Reference: Shormann Calculus, Lessons 60, 66, 73
76	Partial Fractions; Recurrence Problems: Reference: Shormann Precalculus, Lesson 85
77	More on Converging and Diverging Infinite Series: Reference: Shormann Calculus, Lesson 25
	Week 28 Quiz
78	Absolute Convergence and the Comparison Test: Reference: Shormann Calculus, Lessons 25, 77
79	Other Tests for Convergence: Reference: Shormann Calculus, Lessons 25, 77, 78
80	Power Series: Reference: Shormann Calculus, Lessons 24, 25, 76
	Week 29 Quiz
	Exam 4

Shormann Calculus I Assignment Chart

Lesson				
1	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
2	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
3	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 1	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
4	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
5	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
6	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 2	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
7	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
8	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
9	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 3	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
10	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
11	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
12	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 4	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
13	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
14	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
15	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 5	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
16	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
17	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
18	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 6	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
19	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
20	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 7	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	

Lesson				
Practice Exam 1.1	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 1.1		
Practice Exam 1.2	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 1.2		
Exam 1 (Attempt 1)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 1		
Exam 1 (Attempt 2)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 1		
21	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
22	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
23	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 9	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
24	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
25	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
26	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 10	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
27	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
28	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
29	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
30	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 11	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
31	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
32	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
33	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
34	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 12	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
35	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
36	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
37	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 13	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
38	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections

Lesson				
39	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
40	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 14	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
Practice Exam 2.1	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 2.1		
Practice Exam 2.2	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 2.2		
Exam 2 (Attempt 1)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 2		
Exam 2 (Attempt 2)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 2		
41	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
42	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
43	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 16	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
44	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
45	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
46	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 17	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
47	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
48	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
49	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 18	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
50	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
51	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
52	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 19	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
53	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
54	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
55	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 20	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	

Lesson				
56	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
57	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
58	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 21	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
59	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
60	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 22	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
Practice Exam 3.1	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 3.1		
Practice Exam 3.2	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 3.2		
Exam 3 (Attempt 1)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 3		
Exam 3 (Attempt 2)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 3		
61	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
62	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
63	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 24	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
64	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
65	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
66	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
67	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 25	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
68	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
69	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
70	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
71	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 26	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
72	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
73	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections

Lesson				
74	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 27	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
75	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
76	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
77	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 28	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
78	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
79	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
80	<input type="checkbox"/> Reading	<input type="checkbox"/> Lecture	<input type="checkbox"/> Practice Set	<input type="checkbox"/> Corrections
Quiz 29	<input type="checkbox"/> Study	<input type="checkbox"/> Take Quiz	<input type="checkbox"/> Corrections	
Practice Exam 4.1	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 4.1		
Practice Exam 4.2	<input type="checkbox"/> Study	<input type="checkbox"/> Practice Exam 4.2		
Exam 4 (Attempt 1)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 4		
Exam 4 (Attempt 2)	<input type="checkbox"/> Study	<input type="checkbox"/> Take Exam 4		