



9-12 Advanced Mathematics

Adoption Guide Extended

For additional information (e.g. pricing, copyright, ISBN) and Idaho completed evaluations please contact the curricular materials coordinator.

Materials in this guide are contracted from 2022-December 31, 2028.

GRADES 9-12

Cengage

College Prep Algebra

- **Strengths:** The illustrations correlated with the materials and example problems. The subject matter was diverse, representing various demographics in a positive way. The Example problems have many support questions. The online companion has video lectures from different professors. The teacher's edition and lesson guide have a multitude of lesson suggestions for the instructor to use in an easy and readable format.
- **Weaknesses:** There is bit of a learning curve for using the online homework questions with respect to the timing features and matching the learning targets. However, this could be ameliorated with appropriate training. The text could include more open tasks and allow students to model problems rather than just presenting and showing.
- **Key Features:**
 - The program offers various support that addresses the needs of all students without bias.
 - Special Student populations benefit from student resources including the Solutions Manual, which offers step-by-step solutions for all odd-numbered exercises.
 - Throughout the text, solutions to examples from multiple perspectives are presented—algebraically, graphically, and numerically. The side-by-side format of this pedagogical feature helps students see that a problem can be solved in more than one way and to see that different methods yield the same result. The side-by-side format also addresses different learning styles.
 - Additional audio/video support in the form of solutions in English and Spanish, solutions videos, and interactive activities can be found on LarsonCollegePrepAlgebra.com

- WebAssign, the program's main homework platform shows students which topics they've performed well on and where they struggled based on first attempt-on-problem data. Additional problems are provided that cover the concept, leading to mastery.

College Algebra

- Strengths:
 - Accompanying Ebook with practice problems, videos of example problems, worked examples, and embedded animations.
 - Larson Precalculus website with solutions, instructional videos, interactive activities using Desmos, data downloads, projects, practice pre and post-tests, graphs, and skills refreshers.
 - WEBASSIGN platform with over 5,000 questions to choose from to create and grade assignments.
 - Summary, study suggestions with review exercises, and study strategies for each chapter.
 - QR codes in lessons link to additional support.
 - CalcChat.com website provides tutorial help and worked-out solutions to odd-numbered problems.
 - Multiple application problems.
 - Examples do not break across pages.
 - Short histories of mathematicians.
 - Vocabulary check at the beginning of the problem set.
 - Review and Refresh sections to reinforce concepts and prepare for future lessons.
 - Hardcover quality textbook with efficient use of space and graphics.
 - Topics generally included in College Algebra courses are included in the textbook.
- Weaknesses:
 - Textbook format and problem sets lend to a traditional teaching style (review, demonstration, and practice) with surface level understanding.
 - No documentation supporting alignment to Idaho content standards.
 - Ebook embedded animations are very slow.
 - CalcChat offline until 4 pm.
 - Lack of ELL resources within the textbook.
- Key Features:
 - The program offers various support that addresses the needs of all students without bias.
 - Special Student populations benefit from student resources including the Solutions Manual, which offers step-by-step solutions for all odd-numbered exercises. These solutions can also be found on CalcChat.com and its free mobile

app. Additionally, CalcChat.com offers free, live tutoring at prime homework hours to help students complete exercise and grasp concepts.

- Throughout the text, solutions to examples from multiple perspectives are presented—algebraically, graphically, and numerically. The side-by-side format of this pedagogical feature helps students see that a problem can be solved in more than one way and to see that different methods yield the same result. The side-by-side format also addresses different learning styles.
- Additional audio/video support in the form of solutions in English and Spanish, solutions videos, and interactive activities can be found on LarsonPrecalculus.com
- WebAssign, the program's main homework platform shows students which topics they've performed well on and where they struggled based on first attempt-on-problem data. Additional problems are provided that cover the concept, leading to mastery.

Financial Algebra Tax Update

- **Strengths:** The strengths in these materials are the text, online companion, online applications, flash cards, user created flash cards, automatic grading, and end of chapter assessments. The teacher edition and online teacher resources are very detailed, and contain well thought out questions to ask students to further the learning process and assist in group learning. There are enough review questions to help students with previous unfinished learning.
- **Weaknesses:** The student edition presents with a lot of words. Although well-formatted, the wording could be overwhelming to some students.
- **Key Features:** Financial Algebra: Advanced Algebra with Financial Applications is a substantive modeling course for all students that teaches and uses advanced algebra in the content areas of discretionary spending, banking, credit, auto and home ownership, employment, taxes, investments, entrepreneurship, retirement, & budgeting. The program draws upon selected topics from Advanced Algebra, Geometry, Precalculus, Statistics and Probability. Students need only an Algebra 1 prerequisite. The newest edition includes the most recent IRS tax code updates and how they affect our daily lives. Over the decades, the program has proven to be a motivating, engaging, and rewarding experience for all students.

Understanding Statistics

- **Strengths:** The online resources help an already strong text. Specifically, the online companion, the reproducible e-book worksheets, the video lectures, and the concept videos all assist the student with strategically and successfully learning the material. The

teacher's edition assists the educator in presenting the material in a grade-appropriate and understandable way.

- **Weaknesses:** The student text has quite a bit of white space on the left side of each page. It seems as though the publisher was working from a template to save room for the comments made in the teacher's edition. The font-size could have been about 1.5 points larger to avoid eye strain.
- **Key Features:** A thorough and approachable solution that demonstrates the varied links between statistics and real-world applications. Addresses the growing importance of developing students' critical-thinking and statistical-literacy skills by introducing new features and exercises throughout the chapters. Covers, but does not require, use of the graphing calculator, Excel, MINITAB, and SPSS.

Precalculus with Limits

- **Strengths:** This text has good supplemental material, a lot of extra helps for students, a lot of extras for teacher. The online material is fantastic. The extra examples using QR codes is a nice addition for students. The use of calcchat.com and calcview.com is great. There is a nice progression from topic to topic. The units are designed in a way that makes it easy to rearrange to fit the needs of the course.
- **Weaknesses:** This textbook is written at a college level, which isn't really a weakness, just not an aesthetically appealing book, but not bad either.
- **Other Notes:** There is plenty of material to help a teacher teach effectively and help students be successful. It has a lot of extras for students to check to make sure they understand the material and can progress even when missing class or at home and have questions. Online material is editable and well-constructed.
- **Key Features:**
 - Special Student populations benefit from student resources including the Solutions Manual, which offers step-by-step solutions for all odd-numbered exercises. These solutions can also be found on CalcChat.com and its free mobile app. Additionally, CalcChat.com offers free, live tutoring at prime homework hours to help students complete exercise and grasp concepts.
 - Built in professional development in the form of Paul's Notes and instructional videos support the program's culturally responsive content.
 - Throughout the text, solutions to examples from multiple perspectives are presented—algebraically, graphically, and numerically. The side-by-side format of this pedagogical feature helps students see that a problem can be solved in more than one way and to see that different methods yield the same result. The side-by-side format also addresses different learning styles.

- Additional audio/video support in the form of solutions in English and Spanish, solutions videos, and interactive activities can be found on LarsonPrecalculus.com
- WebAssign, the program's main homework platform shows students which topics they've performed well on and where they struggled based on first attempt-on-problem data. Additional problems are provided that cover the concept, leading to mastery.

Precalculus with Limits: A Graphing Approach

- **Strengths:** Makes great use of technology through graphing calculators, QR codes for extra examples, calcchat.com and calcview.com, laronprecalculus.com, nglsync.cengage.com, and lots of teacher resources. There is good progression through each set of practice problems from basic to advanced and many application problems for each section.
- **Weaknesses:** This text provides a lot of extra opportunities for students to make sure they understand the material and can progress even when missing class or at home and have questions. Online material is editable and well-constructed. The QR codes of extra examples being placed within the practice problems is a nice touch, since most students aren't going to go back through material to look at examples.
- **Key Features:**
 - Special Student populations benefit from student resources including the Solutions Manual, which offers step-by-step solutions for all odd-numbered exercises. These solutions can also be found on CalcChat.com and its free mobile app. Additionally, CalcChat.com offers free, live tutoring at prime homework hours to help students complete exercise and grasp concepts.
 - Built in professional development in the form of Paul's Notes and instructional videos support the program's culturally responsive content.
 - Throughout the text, solutions to examples from multiple perspectives are presented—algebraically, graphically, and numerically. The side-by-side format of this pedagogical feature helps students see that a problem can be solved in more than one way and to see that different methods yield the same result. The side-by-side format also addresses different learning styles.
 - Additional audio/video support in the form of solutions in English and Spanish, solutions videos, and interactive activities can be found on LarsonPrecalculus.com
 - WebAssign, the program's main homework platform shows students which topics they've performed well on and where they struggled based on first attempt-on-problem data. Additional problems are provided that cover the concept, leading to mastery.

Trigonometry

- Strengths: Well written, makes great use of technology through graphing calculators, QR codes for extra examples, calcchat.com and calcview.com, larsonprecalculus.com, and lots of teacher resources. There is good progression through each set of practice problems from basic to advanced and many application problems for each section.
- Weaknesses: It would be difficult to get a full year course out of this book. It is more of a semester or trimester book.
- Key Features:
 - Special Student populations benefit from student resources including the Solutions Manual, which offers step-by-step solutions for all odd-numbered exercises. These solutions can also be found on CalcChat.com and its free mobile app. Additionally, CalcChat.com offers free, live tutoring at prime homework hours to help students complete exercise and grasp concepts.
 - Built in professional development in the form of Paul's Notes and instructional videos support the program's culturally responsive content.
 - Throughout the text, solutions to examples from multiple perspectives are presented—algebraically, graphically, and numerically. The side-by-side format of this pedagogical feature helps students see that a problem can be solved in more than one way and to see that different methods yield the same result. The side-by-side format also addresses different learning styles.
 - Additional audio/video support in the form of solutions in English and Spanish, solutions videos, and interactive activities can be found on LarsonPrecalculus.com
 - WebAssign, the program's main homework platform shows students which topics they've performed well on and where they struggled based on first attempt-on-problem data. Additional problems are provided that cover the concept, leading to mastery.

CPM

Precalculus

- Strengths: Most of the problems in this material are story problems. Group work and collaboration is central to the success of this course. The instructions for the teacher are very detailed, and contain well thought out questions to ask students to further the learning process and assist in group learning. There is no review, so upper-level content is covered quickly.
- Weaknesses: There are only a few practice problems addressing each concept. This material doesn't utilize any previous review. There are few high school standards directly met through the course.
- Other Notes: Order of the concepts taught is very irregular. The problems and illustrations tend to be dated (References to dial up, old Volkswagen bugs, etc.).
- Key Features: The mathematical content of the CPM curriculum is carefully aligned with the content standards. Coherence and connections have always been a core and integral

part of CPM. Because of CPM's broad experience and long history with making connections between mathematical topics and developing mathematics in logical "storylines," coherence is deeply and seamlessly interwoven into the fabric of the curriculum. CPM has always emphasized deep conceptual understanding over mnemonics and shortcuts, and has never subscribed to isolating standards as a basis for creating lessons.

CPM courses balance procedural fluency (algorithms and basic skills), deep conceptual understanding, strategic competence (problem solving), and adaptive reasoning (application and extension). CPM is known for its coherence in developing deep conceptual understanding. While many CPM problems involve everyday situations, practice with basic skills and procedures are interwoven in the daily lessons and the homework (mixed, spaced practice). Fluency with basic skills and procedures are emphasized in the Connections series.

Features: Complimentary Professional Development, eTools, Homework Help, Math Notes, Resource Pages, Weekly Tips, Checkpoints, Key Vocabulary Development, Formative Assessment opportunities, Error Analysis, Mathcasts for teachers, SMART Board Files, Lesson Closure strategies, Chapter Closure strategies.

Calculus

- Strengths: Collaborative learning, teacher questioning, additional supplements from other teacher sections online. Problems are story based.
- Weaknesses: Teachers are forced to construct learning activities via the offered resources. The online assessment program is difficult to work with. No hardcopy assessments. Individual problems can't be altered. It would be nice if vocabulary was listed in each section as well.
- Other Notes: Illustrations are dated.
- Key Features: CPM courses are the products of classroom teachers who created lessons that work with a diverse student population. The teaching strategies outlined in the CPM instructional materials were initially informed by scholarly research into how children learn and how teaching should occur in the ideal classroom. Care was taken to field test the lessons with thousands of students during the development of the first edition to ensure the effectiveness of the lessons. Ultimately, the development of the CPM curriculum was informed by the 4000 teachers and over 4 million students that use CPM, the specific suggestions from hundreds of teachers, and even comments and suggestions by students and parents.

Although CPM predates the CCSS Standards for Mathematical Practice by about 20 years, very similar practices have always been an integral part of CPM curriculum. Because of CPM's broad experience and long history with similar practices, the CCSS Mathematical Practices are deeply and seamlessly interwoven into the daily lessons. Each course balances deep conceptual understanding, strategic competence (problem solving), procedural fluency (algorithms and basic skills), and adaptive reasoning (application and extension).

Consistent with the requests frequently heard from leaders of business and industry, CPM regularly has students solve non-routine problems. That is, students develop their skills so

that they can confidently make connections among varied mathematical concepts and deal with problems they have never seen before. Students build problem-solving strategies that apply to most academic disciplines, the workplace, and daily life. On a daily basis, students using the CPM curriculum investigate, analyze critically, question, develop problem-solving strategies, gather evidence, and communicate rigorous arguments to justify their thinking. Using the CPM curriculum, students tackle problems set in everyday contexts to help them make sense of otherwise abstract ideas. Students gather and organize information about problems, break problems into smaller parts, and look for patterns that lead to solutions. Students learn in collaboration with others, sharing information, expertise, and ideas.

While students are solving complex mathematical problems, they are communicating their thinking and understanding, both formally and informally, whether they are writing or speaking. Communication helps to clarify students' thinking, prepares them for sharing their ideas in professional settings, and formal or informal feedback that allows for revision. Communication lets teachers and peers assess students' thinking and depth of understanding. In turn, all students get the chance to improve the quality of their work. More than two-dozen studies have examined the results of both high- and low-performing students on statewide-standardized tests, the SAT, and ACT. All of these studies, as well as detailed investigations of individual schools, show that CPM students learn the basic mathematical skills and procedures that appear on standardized tests at least as well as students who use other programs. Most of the studies show that they do better. Studies that measure the other elements of a complete curriculum—conceptual understanding and problem-solving ability—show that they do considerably better in these areas. Read the research that supports CPM's methodology in the Research tabs at the top of this page.

Features: Complimentary Professional Development, eTools, Math Notes, Resource Pages, Weekly Tips, Homework Help, Key Vocabulary Development, Formative Assessment opportunities, Error Analysis, Mathcasts for teachers, SMART Board Files, Lesson Closure strategies, Chapter Closure strategies.

Statistics

- **Strengths:** Most of the problems in this material are story problems. Group work and collaboration is central to the success of this course. The instructions for the teacher are very detailed, and contain well thought out questions to ask students to further the learning process and assist in group learning. Vocabulary for statistics is well done.
- **Weaknesses:** It is difficult to find additional resources online. There are no example problems or walk-through problems. It is weak on intervention.
- **Other Notes:** Some of the data is insensitive. Multiple problems are found supporting that females aren't good at/going into math fields.
- **Key Features:** CPM courses are the products of classroom teachers who created lessons that work with a diverse student population. The teaching strategies outlined in the CPM instructional materials were initially informed by scholarly research into how children learn and how teaching should occur in the ideal classroom. Care was taken to field test the lessons with thousands of students during the development of the first edition to

ensure the effectiveness of the lessons. Ultimately, the development of the CPM curriculum was informed by the 4000 teachers and over 4 million students that use CPM, the specific suggestions from hundreds of teachers, and even comments and suggestions by students and parents.

Although CPM predates the CCSS Standards for Mathematical Practice by about 20 years, very similar practices have always been an integral part of CPM curriculum. Because of CPM's broad experience and long history with similar practices, the CCSS Mathematical Practices are deeply and seamlessly interwoven into the daily lessons. Each course balances deep conceptual understanding, strategic competence (problem solving), procedural fluency (algorithms and basic skills), and adaptive reasoning (application and extension).

Consistent with the requests frequently heard from leaders of business and industry, CPM regularly has students solve non-routine problems. That is, students develop their skills so that they can confidently make connections among varied mathematical concepts and deal with problems they have never seen before. Students build problem-solving strategies that apply to most academic disciplines, the workplace, and daily life.

On a daily basis, students using the CPM curriculum investigate, analyze critically, question, develop problem-solving strategies, gather evidence, and communicate rigorous arguments to justify their thinking. Using the CPM curriculum, students tackle problems set in everyday contexts to help them make sense of otherwise abstract ideas. Students gather and organize information about problems, break problems into smaller parts, and look for patterns that lead to solutions. Students learn in collaboration with others, sharing information, expertise, and ideas.

While students are solving complex mathematical problems, they are communicating their thinking and understanding, both formally and informally, whether they are writing or speaking. Communication helps to clarify students' thinking, prepares them for sharing their ideas in professional settings, and formal or informal feedback that allows for revision. Communication lets teachers and peers assess students' thinking and depth of understanding. In turn, all students get the chance to improve the quality of their work. More than two-dozen studies have examined the results of both high- and low-performing students on statewide-standardized tests, the SAT, and ACT. All of these studies, as well as detailed investigations of individual schools, show that CPM students learn the basic mathematical skills and procedures that appear on standardized tests at least as well as students who use other programs. Most of the studies show that they do better. Studies that measure the other elements of a complete curriculum—conceptual understanding and problem-solving ability—show that they do considerably better in these areas. Read the research that supports CPM's methodology in the Research tabs at the top of this page.

Features: Complimentary Professional Development, eTools, Math Notes, Resource Pages, Weekly Tips, Statistics Problem Generator, Key Vocabulary Development, Formative Assessment opportunities, Error Analysis, Mathcasts for teachers, SMART Board Files, Lesson Closure strategies, Chapter Closure strategies.

Functions Modeling Change

- **Strengths:** Curriculum is very straightforward without a lot of extra stuff on the text pages. Pages are laid out simply in mostly text (but including charts, tables, or graphs as needed) with section headers, example boxes, and borders around key concepts. Includes Skill Refresher problems, practice exercises, and application problems in every lesson. Each section ends with a summary of the section. Lots of online activities and resources to enhance the curriculum, including ebook, mini video lectures, active learning worksheets and quizzes, classroom activities, section tests and end of chapter ConcepTests.
- **Weaknesses:** Each section includes headers and ends with a summary of the key concepts but the sections do not explicitly list the objectives for that lesson. Not many pictures, or key points, or extra material in the actual textbook. Most resources are only accessible online but printable materials are in pdf form, which would be difficult to edit. Could not easily see a way to edit the online exercise set of problems. ConcepTests are also only printable in pdf form.
- **Key Features:** *Functions Modeling Change, Sixth Edition* is the work of faculty at a Consortium of institutions, originally supported by the National Science Foundation. It represents the first consensus among such a diverse group of faculty to shape a mainstream precalculus text. Bringing together the results of research and experience, the text is designed to be used in a wide range of institutions. The Consortium advocates the use of research-based teaching methods just as it advocated for changes in calculus teaching in the 1990s. The sixth edition of *Functions Modeling Change* reaffirms the authors' efforts to teach problem-solving in mathematics. Their approach balances concepts and procedures, encouraging students to develop critical thinking skills while acquiring the background to pursue calculus and their careers.

Guiding Principles: Varied Problems and the Rule of Four Solving familiar problems aids students in building computational skills. To develop conceptual understanding, students should also confront new problems, where they must choose a method of solution. This program is shaped by the following principles:

- Chapter Review Problems, available for download in Ed, provide opportunities to review ideas from the whole chapter.
- Problems are varied and often challenging. While we provide ample drill problems to build confidence and computational ability, many problems cannot be answered by following a template in the text.
- Text examples are diverse and represent the natural integration of skills and concepts.
- The Rule of Four: where possible, concepts are represented symbolically, numerically, graphically, and verbally. This principle, originally introduced by the Consortium, promotes the use of multiple representations.

The central theme of this book is functions as models of change. The program emphasizes that functions can be grouped into families and that functions can be used as models. Students will explore how function characteristics connect to difference quotients and rates of change, naturally previewing key calculus ideas. Because linear, quadratic, exponential, power, and periodic functions are most frequently used to model physical phenomena, they are introduced

before polynomial and rational functions. Once introduced, a family of functions is compared and contrasted with other families of functions.

A large number of the examples that students see in this precalculus course are real-world problems. By the end of the course, students will be able to use functions to help them understand the world in which they live. The authors include non-routine problems to emphasize that such problems are not only part of mathematics, but in some sense, the point of mathematics.

Precalculus

- **Strengths:** This is a robust curriculum. The textbook is well laid out and easy to follow with clearly stated skills and concept objectives, easy to identify vocabulary and definitions, Examples that include both the words and steps, study tips, concept checks throughout. Each section ends with a section summary. The exercise sets contain Skills, Applications, Catch the Mistake, Conceptual, and Challenge problems and Preview to Calculus problems for each section. Online materials include ebook, lecture videos, technology tips, interactive animations, and exercise problems. It also includes printable Inquiry Based Projects, Model Our World Projects, Algebra Refresher Modules, Section Quizzes, Chapter Practice Tests, and Cumulative Tests. Online in Ed teachers can access the Instructor Manual, lecture PowerPoint Slides, Teacher Tip Videos, Solutions Manual, and the Printed Test Bank.
- **Weaknesses:** Printed materials like the Inquiry Based Projects and Model Our World Projects are in PDF form and not easily editable. Program is written only in English.
- **Other Notes:** All the Our World Projects focus on climate change so, according to the publisher, students can join in the debate.
- **Key Features:** The author's goal in *Precalculus, Third Edition* was to write a book that is seamless with how teachers teach and functions as an ally (not an adversary) to student learning. The text has also been extensively reviewed and checked by three evaluators, ensuring mathematical accuracy of all content.

The program presents clear, accessible lesson content, combined with real-world examples and applications to business, economics, natural sciences, health and medicine, and other fields throughout, so that students always understand the practical relevance of the concepts being learned. The real-world focus is also supported by demonstration videos, online tutorials, simulations, interactive graphs, and other robust digital resources.

Four key features distinguish this book from others, and they came directly from Young's classroom experience with students.

- This course reverses the common presentation of examples by placing the explanation in words on the left and the mathematics problem on the right. This makes it easier for students to read through examples as the material flows more naturally and appears as information is commonly presented in lectures.
- Interactive animations based on Cynthia Young's lectures were created to help students build a solid conceptual understanding of specific learning objectives by delivering learning content integrated with interactive questions to guide and solidify students' foundational knowledge of the topic.
- Students are frequently asked to work a problem immediately following an example in "Your Turn" problems to reinforce and check their understanding. This helps students

build confidence as they progress in the course. These problems are ideal in-class activities that prepare students for their homework assignments.

- Chapter tests and assessments provide endless opportunities for practice to effectively prepare for class quizzes and exams. Active retrieval of information with practice questions is proven to improve information retention better than re-reading or reviewing the material.
- This program purposely separates learning objectives at the beginning of every section into two categories: skills objectives (what students should be able to do) and conceptual objectives (what students should understand). Teachers using the program are encouraged to discuss these learning objectives at the beginning of every class period. These objectives will then be reinforced with exercises that develop both problem-solving skills and conceptual understanding. A special feature of the program includes “Catch the Mistake” exercises available as part of each section. Finding a mistake in a problem-solving sequence requires a higher level of understanding. Using these activities in class with individuals or groups leads to student discussion and enables formative assessment in real time.

Algebra and Trigonometry

- **Strengths:** The materials cover a broad range of topics covering everything expected of a College Algebra and Trigonometry course as well as much more prerequisite content and extended learning content. The presentation of the lesson material and examples is unique and supports student learning inside the classroom and when they are working from home. The material presented with verbal explanation on the left side and the written calculation steps on the right-side fits what students see in the classroom and provides consistency for students as they work from home. The author’s suggestions and training help to support this consistently throughout the course. The continued inclusion of both concept objectives and skill objectives in each lesson provides a strong base for students. The exercise sets provide a wide variety of quite types, applications, and student performance requirements for a well-rounded learning approach and varied ways for students to show mastery of the objectives. Content is covered well, and teachers have options for customizing content.
- **Weaknesses:** The course is written at a high level and would not suite an early high school course option. The content is only available in English, limiting the students who can be served with this course. The online eText was a bit buggy during review process and seemed to bog down with multiple clicks. The publisher does give a recommendation for minimum bandwidth when using the text to help with this issue. Students are required to purchase a 1-year license to access the online WileyPLUS content, which may be a concern.
- **Other Notes:** The program is presented in a clear and well-organized manner. While there are many online components and tools available to students, the paper text itself offers all necessary content for in-class and face-to-face classes.
- **Key Features:** ***Algebra and Trigonometry, Fifth Edition*** was developed to seamlessly align with how teachers teach and to fully support student learning. Cynthia Young’s goal is to offer an intuitive, supportive program for students without sacrificing the rigor needed for true conceptual understanding and preparation for more advanced math courses. ***Algebra and***

Trigonometry helps bridge the gap between classroom lessons and homework by mirroring the instructor voice outside the classroom through digital resources and learning activities. The program covers the requisite topics for a school year while preparing students to move onto later mathematics courses.

Four key features distinguish this book from others, and they came directly from Young's classroom experience with students.

- This course reverses the common presentation of examples by placing the explanation in words on the left and the mathematics problem on the right. This makes it easier for students to read through examples as the material flows more naturally and appears as information is commonly presented in lectures.
- New interactive animations based on Cynthia Young's lectures were created to help students build a solid conceptual understanding of specific learning objectives by delivering learning content integrated with interactive questions to guide and solidify students' foundational knowledge of the topic.
- Students are frequently asked to work a problem immediately following an example in "your turn problems" to reinforce and check their understanding. This helps students build confidence as they progress in the course. These problems are ideal in-class activities that prepare students for their homework assignments.
- Chapter tests and assessments provide endless opportunities for practice to effectively prepare for class quizzes and exams. Active retrieval of information with practice questions is proven to improve information retention better than re-reading or reviewing the material.
- This program purposely separates learning objectives at the beginning of every section into two categories: skills objectives (what students should be able to do) and conceptual objectives (what students should understand). Teachers using the program are encouraged to discuss these learning objectives at the beginning of every class period. These objectives will then be reinforced with exercises that develop both problem-solving skills and conceptual understanding.
- A special feature of the program includes "Catch the Mistake" exercises available as part of each section. Finding a mistake in a problem-solving sequence requires a higher level of understanding. Using these activities in class with individuals or groups leads to student discussion and enables formative assessment in real time.

College Algebra

- **Strengths:** The materials cover a broad range of topics covering everything expected of a College Algebra course as well as many more prerequisite content and extended learning content. The presentation of the lesson material and examples is unique and supports student learning inside the classroom and when they are working from home. The material presented with verbal explanation on the left side and the written calculation steps on the right-side fits what students see in the classroom and provides consistency for students as they work from home. The author’s suggestions and training help to support this consistently throughout the course. The continued inclusion of both concept objectives and skill objectives in each lesson provides a strong base for students. The exercise sets provide a wide variety of quite types, applications, and student performance requirements for a well-rounded learning approach and varied ways for students to show mastery of the objectives. Content is covered well, and teachers have options for customizing content
- **Weaknesses:** The course is written at a high level and would not suite an early high school course option. The content is only available in English, limiting the students who can be served with this course. The online eText was a bit buggy during review process and seemed to bog down with multiple clicks. The publisher does give a recommendation for minimum bandwidth when using the text to help with this issue. In addition, the WileyPLUS online content requires students to purchase a 1-year license.
- **Other Notes:** The program is presented in a clear and well-organized manner. While there are many online components and tools available to students, the paper text itself offers all necessary content for face-to-face classes.
- **Key Features:** *College Algebra, Fifth Edition* was developed to seamlessly align with how teachers teach and to fully support student learning. Cynthia Young’s goal is to offer an intuitive, supportive program for students without sacrificing the rigor needed for true conceptual understanding and preparation for more advanced math courses. *College Algebra* helps bridge the gap between classroom lessons and homework by mirroring the instructor voice outside the classroom through digital resources and learning activities. The program covers the requisite topics for a school year while preparing students to move onto later mathematics courses. Four key features distinguish this book from others, and they came directly from Young’s classroom experience with students.
 - This course reverses the common presentation of examples by placing the explanation in words on the left and the mathematics problem on the right. This makes it easier for students to read through examples as the material flows more naturally and appears as information is commonly presented in lectures.
 - New interactive animations based on Cynthia Young’s lectures were created to help students build a solid conceptual understanding of specific learning objectives by delivering learning content integrated with interactive questions to guide and solidify students’ foundational knowledge of the topic.
 - Students are frequently asked to work a problem immediately following an example in “your turn problems” to reinforce and check their understanding. This helps students build confidence as they progress in the course. These problems are ideal in-class activities that prepare students for their homework assignments.

- Chapter tests and assessments provide endless opportunities for practice to effectively prepare for class quizzes and exams. Active retrieval of information with practice questions is proven to improve information retention better than re-reading or reviewing the material.
- This program purposely separates learning objectives at the beginning of every section into two categories: skills objectives (what students should be able to do) and conceptual objectives (what students should understand). Teachers using the program are encouraged to discuss these learning objectives at the beginning of every class period. These objectives will then be reinforced with exercises that develop both problem-solving skills and conceptual understanding.
- A special feature of the program includes “Catch the Mistake” exercises available as part of each section. Finding a mistake in a problem-solving sequence requires a higher level of understanding. Using these activities in class with individuals or groups leads to student discussion and enables formative assessment in real time.

Trigonometry

- **Strengths:** The materials cover a broad range of topics covering everything expected of a Trigonometry course as well as many more prerequisite content and extended learning content. The presentation of the lesson material and examples is unique and supports student learning inside the classroom and when they are working from home. The material presented with verbal explanation on the left side and the written calculation steps on the right-side fits what students see in the classroom and provides consistency for students as they work from home. The author’s suggestions and training help to support this consistently throughout the course. The continued inclusion of both concept objectives and skill objectives in each lesson provides a strong base for students. The exercise sets provide a wide variety of quite types, applications, and student performance requirements for a well-rounded learning approach and varied ways for students to show mastery of the objectives. Content is covered well, and teachers have options for customizing content
- **Weaknesses:** The course is written at a high level and would not suite an early high school course option. The content is only available in English, limiting the students who can be served with this course. The online eText was a bit buggy during review process and seemed to bog down with multiple clicks. The publisher does give a recommendation for minimum bandwidth when using the text to help with this issue. In addition, the WileyPLUS online content requires students to purchase a 1-year license.
- **Other Notes:** The program is presented in a clear and well-organized manner. While there are many online components and tools available to students, the paper text itself offers all necessary content for face-to-face classes.
- **Key Features:** *Trigonometry, Fifth Edition* was developed to seamlessly align with how teachers teach and to fully support student learning. Cynthia Young’s goal is to offer an intuitive, supportive program for students without sacrificing the rigor needed for true conceptual understanding and preparation for more advanced math courses. *Trigonometry* helps bridge

the gap between classroom lessons and homework by mirroring the instructor voice outside the classroom through digital resources and learning activities. The program covers the requisite topics for a school year while preparing students to move onto later mathematics courses.

- Four key features distinguish this book from others, and they came directly from Young’s classroom experience with students.
 - This course reverses the common presentation of examples by placing the explanation in words on the left and the mathematics problem on the right. This makes it easier for students to read through examples as the material flows more naturally and appears as information is commonly presented in lectures.
 - New interactive animations based on Cynthia Young’s lectures were created to help students build a solid conceptual understanding of specific learning objectives by delivering learning content integrated with interactive questions to guide and solidify students’ foundational knowledge of the topic.
 - Students are frequently asked to work a problem immediately following an example in “your turn problems” to reinforce and check their understanding. This helps students build confidence as they progress in the course. These problems are ideal in-class activities that prepare students for their homework assignments.
 - Chapter tests and assessments provide endless opportunities for practice to effectively prepare for class quizzes and exams. Active retrieval of information with practice questions is proven to improve information retention better than re-reading or reviewing the material.
 - This program purposely separates learning objectives at the beginning of every section into two categories: skills objectives (what students should be able to do) and conceptual objectives (what students should understand). Teachers using the program are encouraged to discuss these learning objectives at the beginning of every class period. These objectives will then be reinforced with exercises that develop both problem-solving skills and conceptual understanding.
 - A special feature of the program includes “Catch the Mistake” exercises available as part of each section. Finding a mistake in a problem-solving sequence requires a higher level of understanding. Using these activities in class with individuals or groups leads to student discussion and enables formative assessment in real time.

MacMillan/Bedford, Freeman, & Worth

Statistics and Probability with Applications

- **Grades 9-12**
 - Strengths: This program is structured into small lessons with integrated activities to get students doing statistics. The curriculum teaches both the why and how of statistics using both print and digital curriculum. It includes both student and teacher eBooks with online homework that contains feedback for both in person and virtual learning. Each lesson identifies the Learning Targets, Vocabulary,

Worked Examples. Every chapter includes Think About it, Activities, Tech Corner, Lesson Apps, and Stats Applied activities as well as Exercises to Build and Master Concepts and Skills, Applying Concepts, Extending Concepts, and Recycle and Review problems right inside the printed text (as well as in the eBook). The teacher's edition contains Teaching Tips (and Teaching Tips to Differentiate), Student Projects with Rubrics, Bell Ringer, FYI and Effective Classroom Practice techniques. Online students can click the play button in the e-book or watch a short video.

- Weaknesses: Because the program submitted contains college-level content that is being used for advanced courses in high schools, it is not specifically intended to address the needs of ELL, Dual Language, and /or Special Education students. Also, the ExamView test generator does not work on some of the updated iOS systems. Printable activities are in pdf form and are not editable.
- Key Features: Hundreds of worked examples with step-by-step solutions that feature the “voice of the teacher” through the “teacher talk” boxes. Each example points to an Exercise to practice the concepts. The Exercises guide students directly to the supporting example for help when they need it. If they need more help, they can click on the Exercise video that features an experienced high school statistics teacher walking step-by-step through the solution to the Exercise. Lesson Apps wrap up the learning targets in each example and provide a great review and self-check for students. Easy-to-use Statistical Applets allow students to do simulations and work with data from their computer, tablet, phone, or any W-Fi connected device. Tech Corners provide keystroke level instruction for using Applets and/or the TI-83/84+ graphing calculator. STATS applied!, real world problems begin and end each chapter to underscore why understanding statistics is important. SaplingPlus combines the unparalleled assets of SaplingPlus' online homework (homework with targeted feedback, superior support for students and instructors) with an e-book and powerful book-specific assets. SaplingPlus combines the unparalleled assets of online homework (homework with targeted feedback, superior support for students and instructors) with an eBook and powerful book-specific assets.

Elementary Statistics

- **Strengths:** This course is structured into chapters, which are broken up into sections whose focus is two or three clearly stated content objectives with interactive activities designed to motivate students to engage with statistics. The curriculum teaches both the why and how of statistics using both print and digital format platforms and is paced at a rate that allows mastery of material which later concepts are built upon in future lessons. It includes both student and teacher eBooks with online homework options that contain feedback for both in person and virtual learning. Each lesson provides several example problems and solutions covering a wide variety of topics and difficulty levels with opportunities for students to practice with *Your Turn*. Each chapter begins with a topic of interest designed to peak a student’s interest followed by a list of learning objectives as well as a variety of miscellaneous topics for discussion presented in the margins of the text. Throughout the chapter there are three to five sections (chapter 13 is an outlier) breaking the concepts up into smaller sets of learning objectives, problems sets for each section, a *Chapter Quick Quiz*, *Review Exercises*, *Cummulative Review Exercises*, a *Technology Project*, a *Data Project*, and a selection of *Cooperative Group Activities*. From time to time, when appropriate for the content in the chapter, the text provides *Ethics in Statistics* for class discussion opportunities. Each section within a chapter begins with *Key Concepts* fully explained to the reader, *Examples* followed by *Yourturn*, *Math* boxes for vocabulary, formulas and concept tables, *Caution* boxes, and *Basic Skills and Concepts* problem sets focusing on *Statistical Literacy and Critical Thinking*. For students who need extended learning there is an additional grouping of problems *Beyond the Basics*. Interspersed throughout the sections are *Tech Center* explanations that provide students with instructions on using a variety of technology platforms to assist their work in analyzing the large (and small) sets of data. The margins of the teacher’s edition provide clear suggestions on pacing, suggested points of emphases, extended learning topics (which can be omitted), and suggested exercises from each problem set at the end of the section. MyMathLab provides for an online format for learning (if necessary) by creating a Study Plan for students depending upon the work they submit. Students and teachers have access to videos, pre-assessments, formative quizzes, and summative assessments. Instructors also have access to additional instructional tools such as test banks for use in assessing students in class and downloadable Power Points that can help guide lessons.
- **Weaknesses:** On-line materials are not consistently in “edit friendly” format. There is an imbalance in the text when it comes to explanations of calculations versus analysis. The solutions for examples in the text are sometimes lacking in clarity when providing explanations for analysis. For first time statistics instructors who may be rusty with the content this can present a challenge in understanding how to present the material (in which case an instructor may have to do some additional research). Although the videos presenting the solution to an example are well done, they do not provide videos

for ALL the examples for when the written explanation of the solution is unclear. Because the program submitted contains college-level content that is being used for advanced courses in high schools, it is not specifically intended to address the needs of ELL, Dual Language, and/or Special Education students.

- Other Notes: It seems the author inserts their opinion from time to time.
“Hopefully, the day will soon come when the United States adopts the metric system and joins almost all of the rest of the countries on planet Earth.” (p.16)
Number 16 on page 34, refers to “Deforestation Rates” as opposed to “Changes in Forest” as the problem discusses satellites used to collect data on rates of change of forested areas, which could increase OR decrease.
“16. **Deforestation Rates** Satellites are used to collect sample data for estimating deforestation rates. The Forest Resources Assessment of the United Nations (UN) Food and Agriculture Organization uses a method of selecting a sample of a 10-km-wide square at every 1° intersection of latitude and longitude.”
- Key Features: Real data brings statistics to life
From cybersecurity to drones and Internet traffic, statistics influences and shapes the world around us. Market-leading author Marty Triola is committed to keeping Elementary Statistics current—with an unprecedented amount of new real data—to help students of all majors understand the role of statistics in the world around us. The revision continues to bolster the hallmarks that have made it so effective, giving students the foundational skills to apply statistical procedures and interpret data. Updates in the 14th Edition keep the text more relevant and supportive than ever—with a wealth of new data sets, exercises, and examples along with larger data sets, content updates, and new videos to support students.
Elementary Statistics is part of a series that also includes an Essentials version as well as technology-specific texts, Elementary Statistics Using the TI-83/84 Plus Calculator and Elementary Statistics Using Excel®. Data sets and other resources for this series are available in MyLab Statistics or pearson.com/math-stats-resources.
MyMathLab® for School empowers you to reach every student. This flexible digital platform combines unrivaled content, online assessments, and customizable features so you can personalize learning and improve results.

Elementary Statistics: Picturing the World

- **Strengths:** This course is structured into Parts, which are subdivided into smaller Chapters, which are broken up into sections where the focus is two or three clearly stated content objectives and interactive activities designed to inspire students to engage with statistics. The curriculum teaches both the why and how of statistics using both print and digital format platforms and is paced at a rate that allows mastery of earlier material so that it can be used to build upon in later lessons. It includes both student and teacher eBooks with online homework options that contain feedback for both in person and virtual learning. Each lesson provides several example problems and solutions covering a wide variety of topics and difficulty levels with opportunities for students to practice with *Try It Yourself*. Each chapter has *Study Tips* for students, *Examples* and *Try It Yourself*, problem sets with *Building Basic Skills and Vocabulary*, *Using and Interpreting Concepts*, and *Extending Concepts*, with *Activities* interspersed throughout. The problem sets start with surface, procedural questions that build up to application and transfer with a practice *Quiz* and *Test* problem set for each chapter. The text also provides *Summary* of concepts when appropriate as well as *Case Studies* for analysis. At the end of each chapter students are provided with an opportunity to look at a *Chapter Summary* as well as a *Uses and Abuses* followed by *Real Statistics Real Decision* and *Technology applications*. The problem sets start with surface, procedural questions that build up to application and transfer.

MyMathLab provides for an online format for learning (if necessary) by creating a Study Plan for students depending upon the work they submit. Students and teachers have access to videos, pre-assessments, formative quizzes, and summative assessments. Instructors also have access to additional instructional tools such as test banks for use in assessing students in class and downloadable Power Points that can help guide lessons.

- **Weaknesses:** On-line materials are not consistently in “edit friendly” format. Because the program submitted contains college-level content that is being used for advanced courses in high schools, it is not specifically intended to address the needs of ELL, Dual Language, and/or Special Education students.
- **Other Notes:** As this text offers a variety of problem-solving opportunities on relevant data, the most controversial topic discovered was an experimental study on using marijuana extract to treat children with an epilepsy disorder.
- **Key Features:** Activities built into each chapter to facilitate hands-on learning. These optional activities employ applets to help simulate statistical concepts. Each chapter concludes with a Technology Project using tools from Minitab®, Excel®, and the TI-83/84™ that give students additional insight into the way technology is used to handle large data sets or complex, real-life questions. Over 1,800 exercises help students build basic skills and vocabulary, use and interpret concepts, and extend concepts. Notes to the Instructor appear in the Annotated Instructor’s Edition, providing suggestions and insights on how to teach the concepts within that chapter. New to this edition: improved coverage and quality of exercises with relevant data & new chapter tests at the end of each chapter

Stats in Your World

- **Strengths:** This course is structured into Chapters with multiple concepts with interactive activities to motivate students to engage with statistics. The curriculum teaches both the why and how of statistics using both print and digital format platforms and is paced at a rate that allows mastery of earlier material so that it can be used to build upon in later lessons. It includes both student and teacher eBooks with online homework options that contain feedback for both in person and virtual learning. Each lesson provides a wide variety of example problems and solutions covering multiple topics and difficulty levels with opportunities for students to practice following examples. Each chapter provides step-by-step strategies, called “Step-by-Step Example” for solving multi-step problems and a highlighted section called “What Can Go Wrong,” which addresses several common misunderstandings. It also has a chapter summary called “What We Have Learned”, a culminating project applying the concepts of the chapter titled “In your World”, and technology tips for “On the Computer” or “TI Tips” for TI83/84. The problem sets start with surface, procedural questions that build up to application and transfer.

MyMathLab provides for an online format for learning (if necessary) by creating a Study Plan for students depending upon the work they submit. Students and teachers have access to videos, pre-assessments, formative quizzes, and summative assessments. Instructors also have access to additional instructional tools such as test banks for use in assessing students in class and downloadable Power Points that can help guide lessons.

- **Weaknesses:** Each chapter covers several concepts covering multiple days and material does not explicitly state the learning objectives. On-line materials are not consistently in “edit friendly” format. Because the program submitted contains college-level content that is being used for advanced courses in high schools, it is not specifically intended to address the needs of ELL, Dual Language, and/or Special Education students.
- **Other Notes:** The following statement occurs on page 6.

Categorical myopia. There’s increasing awareness that gender identity is more complex than just male or female. However, available data from real research, polls, and studies have treated the variable Gender as binary. This means that when we look at important issues in this book – wage inequality and the gender gap in voting, for example – our commitment to use real data means you’ll see only two genders. In the years ahead, we anticipate that more inclusive data may become available.

Posting this statement for clarity of problem sets that discuss topics around gender and clarifying that, when looking at data that has been collected, the text deals in binary gender as determined by biology. It then implies that future material will move towards a more gender fluid/ambiguous definition separated from biology.

- **Key Features:** Gets students thinking statistically from the start
Clear, accessible, and teachable, Stats In Your World leads with practical data analysis and graphics to engage students and get them to think in a statistical context. Through updated, relevant examples and data – and the authors’ signature Think, Show, and Tell

problem-solving method – students learn how to approach a question, solve the problem, and communicate meaning.

In the 3rd Edition, the authors introduce a greater emphasis on simulations as a powerful pedagogical tool. Through early exploration of key statistical ideas, these simulations make it easier for instructors to teach and for students to understand more complicated concepts later in the course. Accompanying applets give students the opportunity to explore important ideas, providing greater conceptual depth that will prepare them to apply their statistical knowledge in this course and beyond.

Works with MyMathLab for School and StatCrunch. All tech packages include StatCrunch, the online statistics software for classroom use. Reveal Mathematics

Stats: Modeling the World AP Edition

- **Strengths:** The course offers both printed and digital versions with a wide variety of practice problems. Digital curriculum is easy to differentiate for each student or a class as a whole. Step-by-step technology guide is available for both teachers and students and includes screenshots of the steps. Practice problems are relevant and thorough as they often ask for more multiple pieces.
- **Weaknesses:** Text does not include teacher notes and suggestions or the Mathematical Language Routines or Structures. It is not detailed and offers a lot of freedom to the teachers to decide how and when to implement collaborative learning or individual practice. ESL and Students with Disabilities support is built in, however it is a college level course and most are designed that way. Many supports for differentiation will not be available if the digital curriculum is not accessible to students.
- **Key Features:** Clear, accessible, and teachable, Stats: Modeling the World leads with practical data analysis and graphics to engage students and get them to think in a statistical context. Through updated, relevant examples and data — and the authors’ signature Think, Show, and Tell problem-solving method — students learn how to approach a question, solve the problem, and communicate meaning.

Co-author Floyd Bullard introduces a greater emphasis on simulations as a powerful pedagogical tool. Through early exploration of key statistical ideas, these simulations make it easier for instructors to teach and for students to understand more complicated concepts later in the course. Accompanying applets give students the opportunity to explore important ideas, providing greater conceptual depth that will prepare them to apply their statistical knowledge in this course and beyond.

Works with MyMathLab® for School and StatCrunch. All tech packages include StatCrunch, the online statistics software for classroom use. Reveal Mathematics

Trigonometry

- **Strengths:** Each section has the Now Try Exercises and the Concept Preview. There are numerous practice problems available in the text. Major definitions and key concepts are clearly highlighted in each lesson. There are teaching tips throughout the teacher's edition. The teacher has access to additional versions of each example in the teacher's edition.
- **Weaknesses:** No instructor guidance for assigning practice problems. Digital features and multiple versions of assessments are not available unless MyMathLab is purchased as an add-on. Section objectives are listed as topics, not student-friendly objectives.
- **Other Notes:** The text is only currently available in English. Some supports for ELLs are given through MyMathLab, but they are not equivalent to the English version of the curriculum.
- **Key Features:** Solid support for your evolving course
The College Algebra series by Lial, Hornsby, Schneider, and Daniels combines the experience of master teachers to help students develop the balance of conceptual understanding and analytical skills needed to succeed in mathematics. For this revision, integrated review is now available in MyMathLab® for School for every title in the series to accommodate varying levels of student preparation. The Review chapter has been expanded to cover the basic algebra concepts that students often find most challenging. MyMathLab for School courses include Enhanced Sample Assignments, created by co-author Callie Daniels, using her best practices in the classroom to maximize student performance.

Precalculus

- **Strengths:** Clean and modern-looking layout and graphics. Engaging chapter and section introductions that ground the text in real-world application of mathematics. Numerous practice problems of varying degrees of difficulty and types. Emphasis on collaborative learning opportunities and non-routine problem-solving.
- **Weaknesses:** No instructor guidance for assigning practice problems. Digital features and multiple versions of assessments are not available unless MyMathLab is purchased as an add-on.
- **Other Notes:** The text is only currently available in English. Some supports for ELLs are given through MyMathLab, but they are not equivalent to the English version of the curriculum.
- **Key Features:** Show students their world if profoundly mathematical.
Bob Blitzer continues to support and inspire students with his engaging approach, making this text beloved year after year by students and teachers alike. Blitzer's unique background in mathematics and behavioral science informs a wide range of

applications, drawn from pop culture and up-to-date references, that appeal to students of all majors and connect math to students' lives.

Blitzer's updated MyMathLab® for School course aims to help bring underprepared students up to speed.. Integrated Review and an expanded suite of materials support all student, regardless of course format or structure. New gradable GeoGebra Graphing Exercises create a more dynamic graphing environment, encouraging more of a paper-pencil experience, while the expanded selection of Interactive Figures helps students visualize mathematical concepts.

Reach every student with MyMathLab for School with Pearson eText

MyMathLab for School empowers you to reach every student. This flexible digital platform combines unrivaled content, online assessments, and customizable features so you can personalize learning and improve results.

Precalculus: Enhanced with Graphing Utilities

- **Strengths:** “Preparing For This Section” at the beginning of each section helps instructors and students bring in prior knowledge, while Assess Your Understanding, gives students conceptual knowledge and Skill Building helps student cement the procedures. Explorations, Challenge problems, Explain and Discuss and Chapter Project activities are specifically designed for use in group learning. Major definitions and key concepts are clearly highlighted in each lesson.
- **Weaknesses:** No instructor guidance for assigning practice problems. Digital features and multiple versions of assessments are not available unless MyMathLab is purchased as an add-on.
- **Other Notes:** The text is only currently available in English. Some supports for ELLs are given through MyMathLab, but they are not equivalent to the English version of the curriculum.
- **Key Features:** Prepare, practice, review

The proven approach of Michael Sullivan and Michael Sullivan III focuses students on the fundamental skills needed for the course: prepare for class, practice with homework, and review the concepts. The Enhanced with Graphing Utilities Series offers a thorough integration of graphing utilities into topics, allowing students to explore mathematical concepts and encounter ideas usually studied in later courses. Many examples show solutions using algebra side by side with graphing techniques.

In the 8th Edition of the series, all exercises and examples in the texts have been reviewed and updated as needed. The authors have added new problem-solving and review features — including Interactive Figure exercises that get students thinking visually and conceptually, and Integrated Review within MyMathLab® for School for students who need to revisit prerequisite topics.

Precalculus: Graphical, Numerical, Algebraic

- Strengths: Quick Review sections in practice problems contain guidance on which review sections to reference if a student needs help. Explorations and activities are specifically designed for use in group learning. Objectives are given in student-friendly language. Major definitions and key concepts are clearly highlighted in each lesson.
- Weaknesses: No instructor guidance for assigning practice problems. Digital features and multiple versions of assessments are not available unless MyMathLab is purchased as an add-on.
- Other Notes: The text is only currently available in English. Some support for ELLs are given through MyMathLab, but they are not equivalent to the English version of the curriculum.
- Key Features:
 - The Rule of Four—A Balanced Approach
 - A principal feature of this text is the balance among the algebraic, numerical, graphical, and verbal methods of representing problems: the rule of four. This approach reinforces the idea that to understand a problem fully, students need to understand it algebraically as well as graphically and numerically.
 - Twelve Basic Functions
 - Twelve basic functions are emphasized throughout the text as a major theme and focus. These functions are: The Identity Function, The Squaring Function, The Cubing Function, The Reciprocal Function, The Square Root Function, The Exponential Function, The Natural Logarithm Function, The Sine Function, The Cosine Function, The Absolute Value Function, The Greatest Integer Function, The Logistic Function.
 - Looking Ahead to Calculus
 - The Looking Ahead to Calculus icon is found throughout the text next to many examples and topics to point out concepts that students will encounter again in calculus. Ideas that foreshadow calculus, such as limits, maximum and minimum, asymptotes, and continuity, are highlighted. Some calculus notation and language are introduced in the early chapters and used throughout the text to establish familiarity.

Calculus: Graphical, Numerical, Algebraic

- **Strengths:** Quick Review sections in practice problems contain guidance on which review sections to reference if a student needs help. Explorations and activities are specifically designed for use in group learning. Objectives are given in student-friendly language. Major definitions and key concepts are clearly highlighted in each lesson.
- **Weaknesses:** No instructor guidance for assigning practice problems. Digital features and multiple versions of assessments are not available unless MyMathLab is purchased as an add-on.
- **Other Notes:** The text is only currently available in English. Some support for ELLs are given through MyMathLab, but they are not equivalent to the English version of the curriculum.
- **Key Features:** For AP[®] Calculus AB and BC
This course is available on MyMathLab[®] for School. The sixth edition of Calculus: Graphical, Numerical, Algebraic, AP* Edition, by Demana, Waits, Kennedy, Bressoud, and Boardman completely supports the content, philosophy, and goals of the Advanced Placement (AP*) Calculus courses (AB and BC).
The College Board recently finished a lengthy and thorough review of the AP* Calculus courses to ensure that they were consistent with the best college and university courses with similar educational goals. This review resulted in a repackaging of the course descriptions in terms of big ideas, enduring understandings, learning objectives, and essential knowledge, but the learning goals remained essentially the same. That allowed us to retain the overall flow of our previous edition and concentrate our attention on how we might be more helpful to you and your students in certain parts of the course. A very broad look at the overall goals of this text is given in the following bulleted summary. Although these are not explicit goals of the AP program and do not include all of the learning objectives in the new AP Curriculum Framework, they do reflect the intentions of the AP Calculus program. (Note that the goals preceded by an asterisk are aligned with the BC course and are not required in AB Calculus.)

For Questions Contact

Content & Curriculum
Idaho State Department of Education
650 W State Street, Boise, ID 83702
208 332 6800 | www.sde.idaho.gov