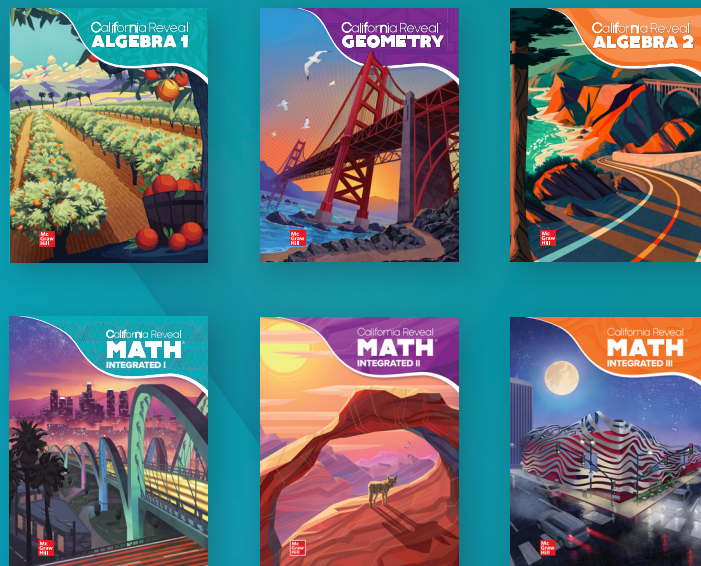




Scan the QR code or visit
mhecalifornia.com/reveal
to learn more about
California Reveal Math.[®]



California Reveal **MATH**[®]

Algebra 1 • Geometry • Algebra 2
Integrated I • Integrated II • Integrated III

Program Overview

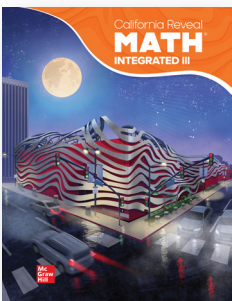
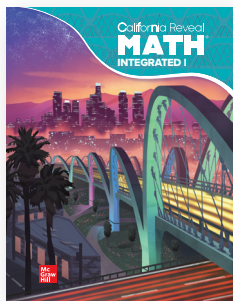
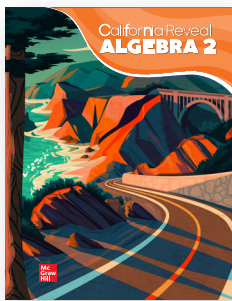
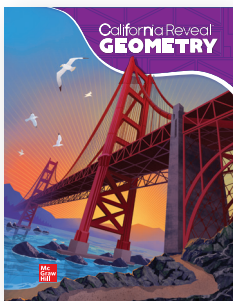
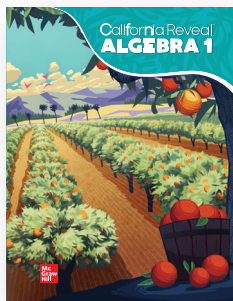


Welcome to California Reveal Math®

California Reveal Math invites students to experience the wonder, joy, and beauty of math through engaging, curiosity-driven lessons that connect math to their everyday lives. With alignment to the **California Common Core State Standards for Mathematics** (2013) and the **California Mathematics Framework** (2023), this curriculum provides educators with asset-based resources that celebrate students’ strengths and support rich, meaningful engagement for every learner.

Through a focus on equity and inclusivity, *California Reveal Math* meets students at their individual starting points, nurturing growth as they build mathematical language, deepen critical thinking, and progress through concepts in a cohesive, connected approach to learning.

California Reveal Math empowers teachers to inspire and equip every learner for long-term success.



Math Is Everywhere and for Everyone!

California Reveal Math® invites students on a journey to explore and investigate math through authentic learning experiences.

- **Students unlock a mathematical perspective** by using models to understand the world, solve problems, and apply their learning—revealing math as a joyful, interconnected part of everyday life.
- **Each student’s unique knowledge is seen as an asset**, with data-driven recommendations used to provide tailored support and practice that enhance understanding and mastery of content.
- **Equipped with scaffolded content, real-time support, actionable data, and formative assessment tools**, educators can provide equitable, high-quality instruction while continually enhancing their teaching practices.
- **Engaging discourse serves as the foundation for each lesson**, empowering teachers to facilitate classroom discussions that promote agency, mathematical thinking, and the development of lifelong learning habits.

Authentic Connections

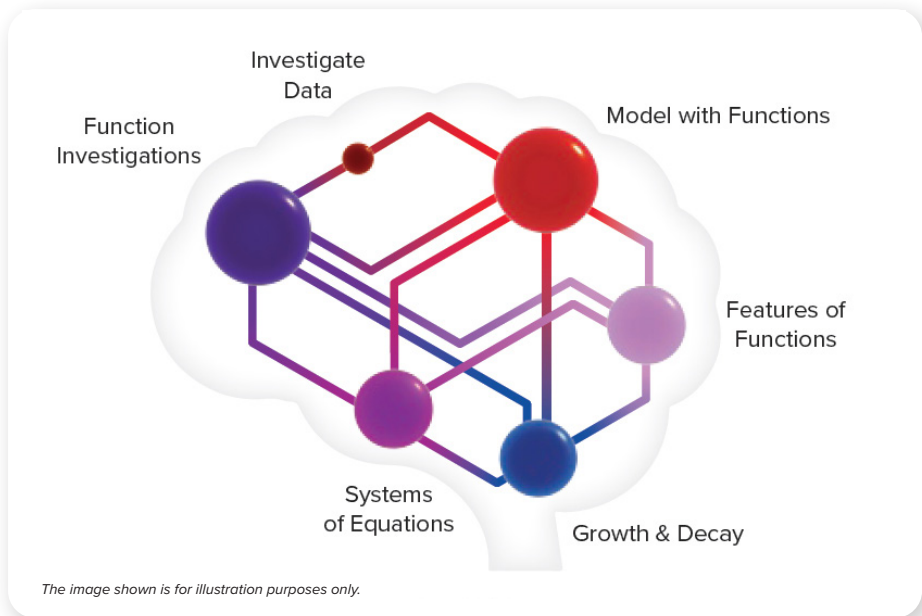
Personalized Learning

Equitable Instruction

Engaging Discourse

Harness the Power of Big Ideas

The instructional design of *California Reveal Math*[®] builds on students’ prior knowledge to create a cohesive and meaningful learning experience, fostering conceptual understanding through connections between the Big Ideas at each grade level.



The **Unit Overview** serves as a critical planning tool, highlighting important background information on the Big Ideas, Content Connections, and Drivers of Investigation that are seamlessly woven throughout each unit.

Big Idea

Features of Functions

In this unit, students graph linear functions by making a table of values or by using the *x*- and *y*-intercepts. They calculate and interpret rate of change, and they rewrite equations by applying the properties of equality.

In Lessons 3-1 to 3-4, students focus on building fluency with linear functions. They use tables, graphs, and equations to represent and analyze lines. In Lesson 3-4, they further extend their understanding of linear functions as they apply transformations to a given function and study the effects on the graph of the function. They analyze nonlinear functions, using tables, graphs, and equations to identify the behavior of the functions.

In Unit 4, students decide which form of equation to use to create a linear equation based on what information is given. They also apply their understanding of data and lines to find a line of best fit. In Units 8, 9, and 10, students apply their understanding of functions to other families of nonlinear functions.

Build the Language of Mathematics

California Reveal Math[®] supports all students, including multilingual learners, by:

- Developing English language proficiency alongside math-specific language skills.
- Encouraging language production with embedded supports.
- Deepening understanding of how language can be used for different purposes

LOM

Language of Mathematics supports every student with the unit’s key math terms. Prompts focus on developing vocabulary essential for mathematical discussion throughout the lesson.

MLD

Math Language Development activities build English language skills.

MLR

Math Language Routines are integrated in each lesson during Explore and Develop to support sense-making and cultivate conversation.

MLL

Multilingual Learner Scaffolds are placed strategically throughout each lesson to provide teachers with scaffolded instruction to help students make meaning of math vocabulary, ideas, and concepts in context. Three levels of scaffolding—Emerging, Expanding, and Bridging—ensure the right level of support for each student.



Multilingual learner support within *California Reveal Math* is based on best practices from current research and the English Learners Success Forum.

Example 3 Linear Versus Not Linear

Determine whether the function represented by the table is linear. If it is, state the rate of change.

Think About Representations When is a function linear and how is that represented in a table of values?

The graph of a linear function is a line. If the graph of a function is a line, the table of values will show that the function is increasing or decreasing at a constant rate.

Find the changes in the *x*-values and the changes in the *y*-values.

The rates of change are not constant. Between some pairs of points the rate of change is $\frac{3}{7}$, and between the other pairs it is $\frac{2}{7}$. Therefore, this is not a linear function.

<i>x</i>	<i>y</i>
22	-4
29	-1
36	1
43	4
50	6

MLL Multilingual Learner Scaffolds (Use with Example 2 Check and Example 3)

Emerging For the Example 2 Check, review the concept of ticket prices for major league baseball teams like the San Diego Padres. Point out that tickets are not likely to be the exact prices shown on the graph. Explain that *average* as a math term means “a number that best represents the data.”

Expanding For Example 3, have students review the last paragraph of instruction. Tell students to use context to determine the meaning of *constant*. Help students see that the text describes something that is *not constant* and provides details. Ask students what they think *constant* means based on this paragraph.

Bridging For the Example 3 Check, have students work in pairs or small groups to complete the activity, and then share their process with another group. Ask students to use sequential transitions such as *first*, *next*, *then*, and *finally* to describe how they determined the answer to the question.

Helping Every Student See Themselves as a Math Person

California Reveal Math® redefines what it means to be a math person, helping every student recognize their unique potential. Educators are equipped with tools and strategies to create a student-centered learning environment where all learners see themselves as capable mathematicians.

Sparking Inquiry with Essential Questions

Each unit begins with the Essential Question, designed to reveal students’ prior knowledge and draw connections to the Big Ideas, making the math feel meaningful and accessible.

 **Essential Question** What can a function tell you about the relationship that it represents?

Building Confidence Through Collaboration

Every lesson in California Reveal Math encourages collaboration, discussion, and refinement of ideas beginning with the Explore activity, which invites students to question, discuss, and reason with a partner or small group. Through this process, students begin to see each other as valuable resources within a supportive, active learning community.

Lesson 3-1

Graphing Linear Functions

Today's Goal
Graph linear functions by making tables of values and using the x- and y-intercepts.

Explore
In her adventure game, Amanda takes a straight, diagonal path through a forest in search of golden coins. The equation that represents the function of her path is $y = 3x + 6$.

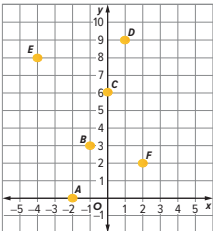
Complete and discuss with your partner or group.
Explore the relationship between the equation and points on the graph.

1. Determine whether the coordinates of each point satisfy the equation of Amanda's path.

2. What do you notice about the points that satisfy the equation? What do you notice about the points that do not satisfy the equation?

3. Given an equation, how could you find points on the graph?

Inquiry How is the graph of a linear equation related to its solutions?



You can also explore this concept with digital tools in the Explore online.

 **Inquiry** How is the graph of a linear equation related to its solutions?

Lesson 3-2

Rate of Change and Slope

Explore
In Yosemite National Park, Half Dome is a granite dome and one of the most challenging hikes. To reach the summit of Half Dome, hikers must line up to ascend the last 400 feet. This portion of the hike is so steep that park rangers have implemented a cable system to aid climbers.

Today's Goal
Calculate and interpret rate of change and slope.

Today's Vocabulary
• rate of change

Complete and discuss with your partner or group.
Connect and Discuss How does slope help to describe real-world objects? How does it help to describe a line?



 **Connect and Discuss** How does slope help to describe real-world objects? How does it help to describe a line?

Cultivate a Community of Learners



California Reveal Math® emphasizes an asset-based approach that cultivates communal learning. Throughout the program, students build on their experiences, collaborate with peers, and develop problem-solving skills, while teachers foster discussions that deepen mathematical understanding.

Actionable Strategies for Teachers and Look fors of Student Behaviors are available at the beginning of each unit to support teachers in providing access and opportunity for all students.

Actionable Strategies for Teachers	Look fors of Student Behaviors
Pose purposeful questions that foster mathematical connections to students’ realities outside of school.	
- During instruction ask students where they see similar mathematics in their own lives. - When discussing images, ask students where they see the math or have students bring images that are mathematical to discuss. - Ask students where they see math in their classroom, school, home, and community.	- Students relate math situations to their personal everyday lives and culture. - Students offer examples of mathematics from their everyday lives and experiences. - Students actively listen to where there is math in their school and community and make sense of, clarify, and improve each other's ideas.

Every lesson includes point-of-use support, such as Access Content prompts, to equalize entry points to discussion.

Access Content
If... students comment on the steepness of the roads.
Then... discuss the meaning of slope and how that relates to linear and nonlinear functions.

Think Like a Mathematician

California Reveal Math® empowers teachers to unlock the brilliance of every learner by systematically reinforcing the **Standards for Mathematical Practice** (SMPs) to cultivate productive habits of mind and interaction.

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

2. Reason abstractly and quantitatively.

3. Construct viable arguments and critique the reasoning of others.

4. Model with mathematics.
5. Use appropriate tools strategically.

6. Attend to precision.

7. Look for and make use of structure.

8. Look for and express regularity in repeated reasoning.

SMP

Developing the Mathematical Practices prompts in the Teacher Edition provide guidance and structure for students as they bring the Big Ideas to life!

Elicit student thinking and reasoning as part of problem-solving through **Think About...** prompts in the Student Edition.

Example 1 Graphing Linear Functions by Making a Table

Graph $-2x - 3 = y$ by making a table.

Think About Representations How can you connect the equation of a function to a table and a graph?

Talk About It!

What values of x might be easiest to use when graphing a linear equation when the x -coefficient is a whole number? Discuss your reasoning.

Talk About It! prompts in the Student Edition encourage student-to-student discourse. Students explain their thinking, ask questions, and justify solutions while investigating mathematical concepts.



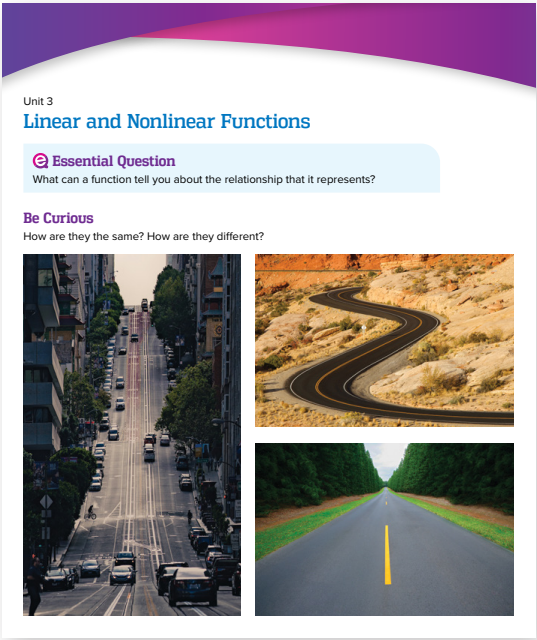
Each unit includes a **Number Sense Routine** designed to support high school students in exploring parallels between numbers and functions, extending their understanding of number systems, and developing financial literacy skills.

Curiosity Sparks Connection

California Reveal Math® provides you with the tools you need to spark curiosity, facilitate engaging mathematical discourse, and build academic language.

Be Curious

Make whole-group discussion accessible to all students, starting with the **Essential Question**. Then engage in a low-floor, high-ceiling mathematical discussion with the **Be Curious** activity.



Authentic Connections

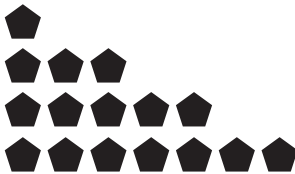
- **Launch the Unit** videos use authentic scenarios to show how the math content they are learning connects to the world around them.
- Each unit connects to a STEM career through a **Spotlight!** highlighting the individual brilliance of a historical math figure.
- **Tuva Labs** provide students with an opportunity to explore California-specific topics by manipulating data sets and analyzing the results. Teachers can even use their own data sets for students to explore!



Ignite Activities for every unit engage students with thoughtfully crafted, puzzle-like tasks designed by Raj Shah, Ph.D, providing just enough information to spark curiosity and challenge their thinking.

Patterns in Pentagons

Look at the pattern.



1. What do you notice?
2. What mathematical questions can you ask?

Talk About It! Share your observations and questions with a partner. What do you notice about the observations you each made?



Dr. Raj Shah
Inquiry and Productive Struggle

Engage Students Through Authentic Tasks

Mathematical Modeling

The **Mathematical Modeling** project closes each unit with an authentic open task connected to the California Environmental Principles and Concepts. Students engage in discussion and critical thinking as they work in groups to develop a mathematical model based on the practice of building mathematical competencies.

Performance Tasks

Each unit culminates with a **Practice Performance Task** followed by a **Secure Performance Task**. The Practice Performance Task focuses on problem-solving strategies, using previously learned material as a scaffold. The Secure Performance Task assesses the content in the unit.

Practice Performance Task

Geometric Designs

An art teacher assigns a stained-glass design project to her students every year. Students must use geometric figures and a series of transformations to create a pattern that fits on a 8.5 inches by 11 inches piece of paper and fills up most of the space. They make their designs on a coordinate grid. Once their designs are done, the students use the pattern to create a stained glass made from transparent paper in various colors.

- Juan's design starts with a 4-inch by 3-inch rectangle centered at the origin so the coordinates of the vertices are (2, 1.5), (2, -1.5), (-2, -1.5), and (-2, 1.5). He dilates the rectangle using a scale factor of $\frac{3}{2}$ to create a second rectangle. He dilates the second rectangle by the same scale factor to create a third rectangle, and so on. What are the coordinates of the vertices of the fourth rectangle to the nearest tenth?
- Maria's design is created by repeatedly translating squares 1 inch to the right and 1 inch down within the available space. The original squares have vertices with the given coordinates. What are the vertices of the 6th translation of Square B?

Square A: (-5, -1), (-3, -1), (-3, -3), (-5, -3)
Square B: (-5, 4), (-3, 4), (-3, 2), (-5, 2)
Square C: (0, 4), (2, 4), (2, 2), (0, 2)
- Rose's design is two rows of three equally spaced stars. Each star has six vertices formed by two overlapping equilateral triangles. The first triangle of the original star has vertices at (4.5, 3), (7, -1.5), and (2, -1.5). The second triangle is a reflection of the first triangle across the x-axis.
 - What are the coordinates of the vertices of the second triangle that forms the original star?
 - Another star is formed by translating the original star 4 units to the right. What are the coordinates of the six vertices of this new star, to the nearest tenth?
 - Describe how Rose can complete the top row of stars in her design.
 - Describe a series of one or more transformations that will complete the bottom row of stars in Rose's design.
 - Is there more than one way to complete the bottom row of stars in Rose's design? Describe the transformation(s).

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176 Unit 3 • Linear and Nonlinear Functions

Mathematical Modeling

Another Way to Get Around

Bicycling can help reduce pollution by reducing car emissions. Bicycle sharing programs provide tourists and city residents with transportation options that are environmentally friendly.

Build Your Competency

As you approach this activity,

- focus on building your skills with making reasonable assumptions in constructing a model,
- work cooperatively in a small group,
- record your thinking in your Journal, and
- prepare to present your work.

POSE: Discuss and Question

- What questions do you have about renting a bicycle from a share program?
- What do you need to know when trying to decide whether bicycle sharing is a reasonable option?
- What do you know about the impact of bicycle sharing programs on the environment?

As a group, prioritize your questions. Work with the class to choose a question that can be explored using a mathematical model.

CONSTRUCT: Ideate and Construct a Model

- Gather any data that you may need to answer the question.
- What factors influence the situation? How are these factors related to the mathematical model?
- What mathematics and strategies can you use in your model?
- What assumptions, if any, are you making in your model?

ANALYZE: Complete Mathematical Analysis

- What mathematics will help you complete your analysis?
- What problem-solving strategies can help you with your analysis?

INTERPRET AND VALIDATE: Examine Your Results

- How does the mathematics you used translate to the context? How does your solution relate to the real-world context?
- Does your model represent the situation well or does it need to be revised? Explain your reasoning.
- Do you have an alternative plan you want to consider?

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 **California's Environmental Principles and Concepts**

Principle 2 People Influence Natural Systems

Concept A Direct and indirect changes to natural systems due to the growth of human populations and their consumption rates influence the geographic extent, composition, biological diversity, and viability of natural systems.

Teach Math with Confidence

California Reveal Math® supports teachers as they facilitate student learning by giving them the tools they need at point of use.

Rich, Premade Lesson Presentations

Each editable **Lesson Presentation** includes instructional routines, discourse structures, and language scaffolds all aimed at increasing engagement and peer-to-peer collaboration. Point-of-use prompts help facilitate rich classroom discourse and guide next steps in learning.

Effective Teaching Practices

ETP **Effective Teaching Practices** found throughout the lesson support teachers as they guide instruction, encourage discourse, and keep students at the center of learning.

Example 1 Graphing Linear Functions by Making a Table

Graph $-2x - 3 = y$ by making a table.

Think About Representations How can you connect the equation of a function to a table and a graph?

A table of values can be used to find and organize solutions to the equation that represent points on the graph of a linear function.

Step 1 Choose any values of x from the domain and make a table.

Step 2 Substitute each x -value into the equation to find the corresponding y -value. Then, write the x - and y -values as an ordered pair.

Every ordered pair that makes the equation true is a solution to the equation and is on its graph.

x	$-2x - 3$	y	(x, y)
-4	$-2(-4) - 3$	5	$(-4, 5)$
-2	$-2(-2) - 3$	1	$(-2, 1)$
0	$-2(0) - 3$	-3	$(0, -3)$
1	$-2(1) - 3$	-5	$(1, -5)$
3	$-2(3) - 3$	-9	$(3, -9)$

Example 1 Graphing Linear Functions by Making a Table

ETP **Pose Purposeful Questions**

- What values are in the domain of the function?** all real numbers
- Why is it helpful to choose both positive and negative values?** Sample answer: Choosing positive and negative values gives you a better idea of what the graph will look like and will show you where the graph crosses the y -axis.
- What should you do if one of the points you graph is not on the same line as the others?** Sample answer: Check your work to see whether you miscalculated the y -value.

Plan a Powerful Learning Experience in Every Lesson

The *California Reveal Math*® **Teacher Edition** and **Student Edition**, along with the **Digital Teacher Center** and **Digital Student Center**, offer essential tools for engaging instruction.

 DIGITAL

 STUDENT EDITION

 TEACHER EDITION

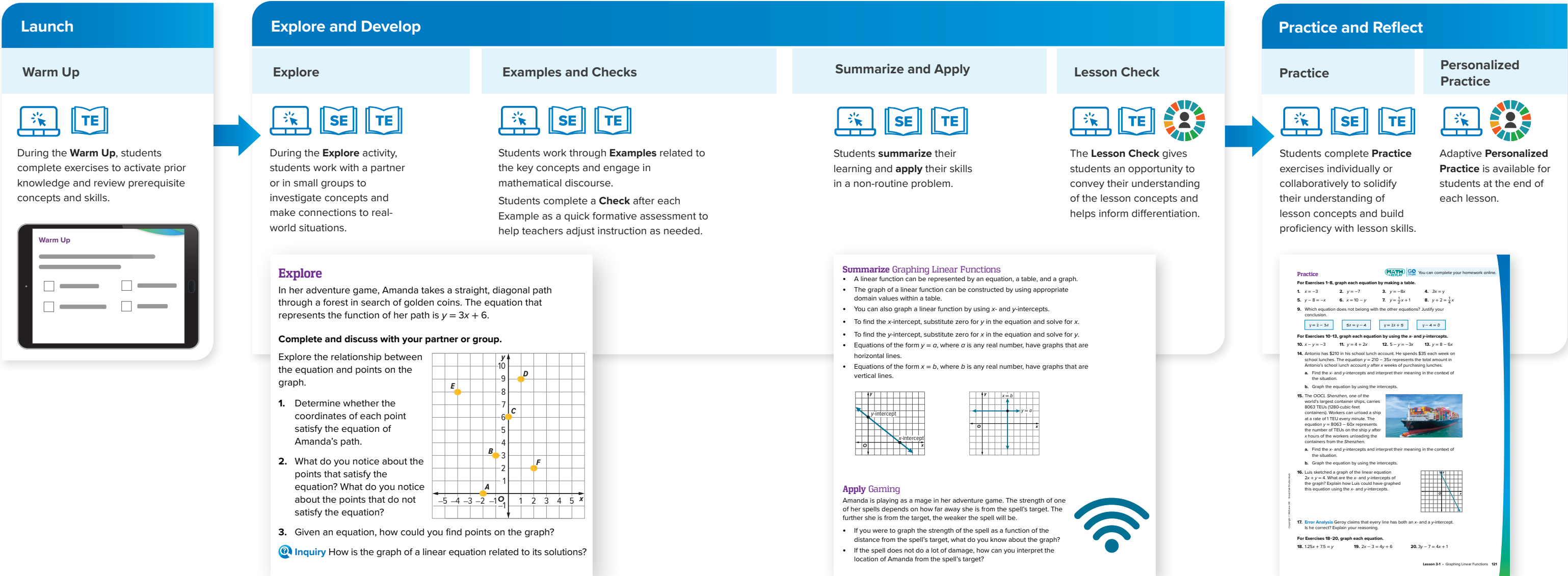
 DATA REVIEW AND PERSONALIZATION

Kahoot!

Spark student engagement with ready-to-play Kahoot! quizzes for each unit. You can easily launch each kahoot directly from the McGraw Hill platform—no extra accounts needed!

Math Replay Videos

Every lesson includes a brief video recap of the lesson concept for students to reference as they complete independent practice assignments or homework.

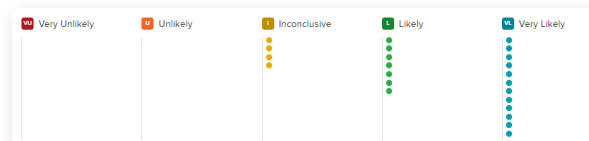


Unlock Student Potential

- **Real-Time Data Insights:** Instead of relying on fragmented or outdated test scores, our system continuously collects and updates data daily, giving teachers real-time insights into each student's needs.
- **Holistic Student Understanding:** By unifying data from practice, assessments, and digital interactions, our system provides teachers with a complete view of proficiency—keeping student learning and growth at the center of instruction.
- **Dynamic, Personalized Learning:** The system adapts daily to generate personalized learning and practice activities from a wide range of data, ensuring instruction that continuously aligns with each student's unique learning needs.

[illegible]

Distribution Charts give a detailed view of student data and understanding across grade, domain, and standard levels.



3

Practice and Assessment

California Reveal Math® offers a balanced approach to evaluating student progress with flexible formal and informal assessment paths. With daily, actionable feedback, teachers are equipped with tools to assess understanding and adjust instruction in real time, supporting continuous improvement.

Mistakes = Opportunities for Growth

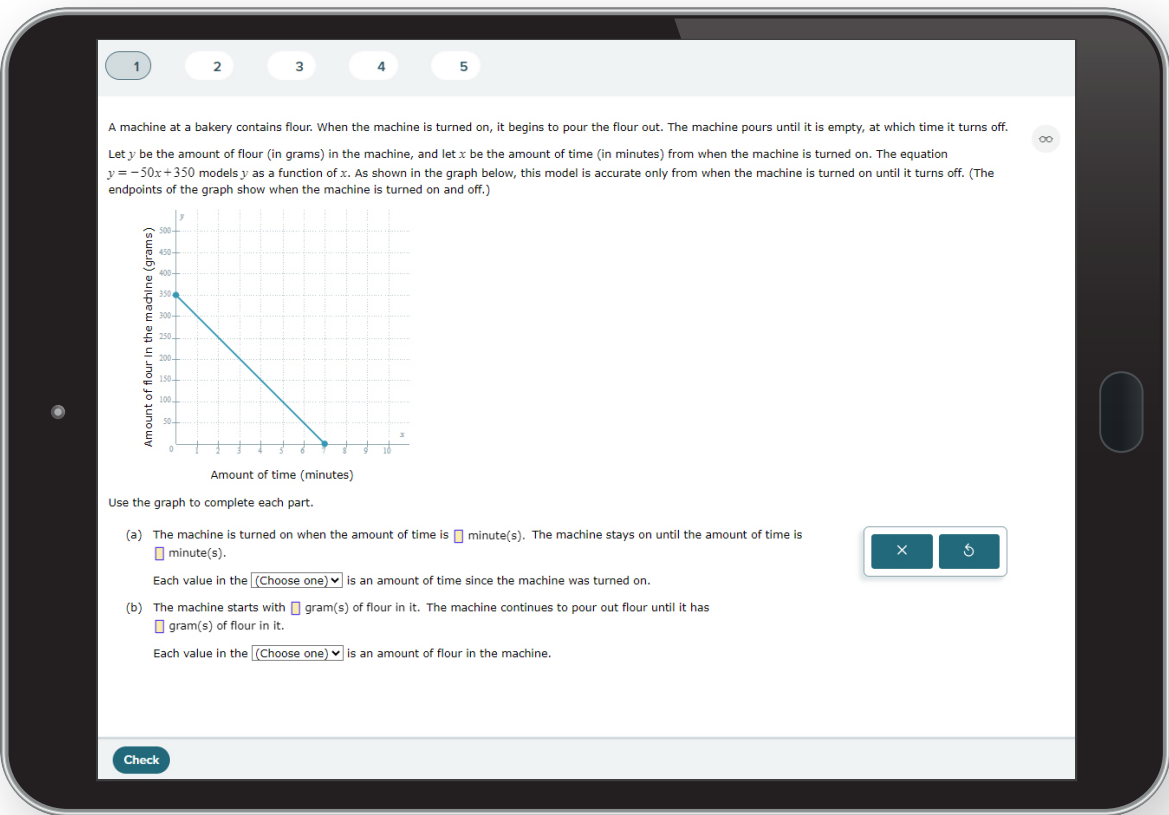
Each unit features a Cheryl Tobey Formative Assessment Math Probe—exclusive to McGraw Hill!

Students complete an activity that is designed to target common misconceptions about a particular mathematical concept. Teacher resources include support for diagnosing and correcting those misconceptions.



Effective Practice at the Right Level

To meet each student’s specific needs, California Reveal Math utilizes next-generation AI in ALEKS®, allowing students to work on exactly what they are ready to learn, achieving over 90% accuracy. This approach provides practice tailored to individual skill levels rather than standardized content.



Rich, Flexible Practice Opportunities

Every lesson includes a variety of practice sets with various question type formats, immediate feedback, support, and multiple question attempts. Personalized Practice is adapted to each student’s unique learning path and is available at the end of each lesson.

Assessment Solutions

California Reveal Math® provides embedded, regular formative checkpoints to monitor student learning and provide feedback that can be used to modify instruction.

- Cheryl Tobey Formative Assessment Probes
- Checks after each Example
- Lesson Checks at the conclusion of each lesson

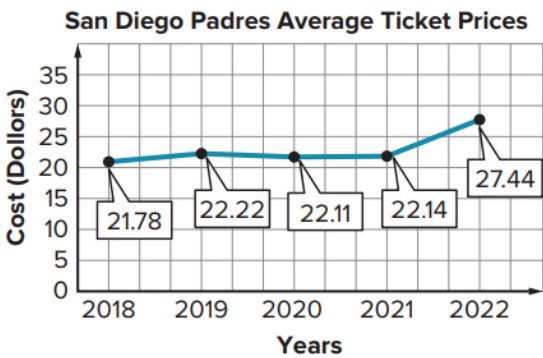
Check

The graph shows the average ticket prices for the San Diego Padres baseball team.

Part A Find the rate of change in ticket prices between 2019–2022.

Part B Between what years do the ticket prices have the fastest rate of change?

Part C Between what years is the rate of change negative?



Summative assessments aligned to California Common Core State Standards evaluate student learning at the conclusion of the unit.

- Unit assessments
- Performance tasks
- Benchmark assessments
- End of Course assessment

Build your own assessments with access to banks of questions that enable a wide range of options.

On-Demand Professional Learning

On-demand online professional learning resources included within *California Reveal Math*® provide teachers and administrators with the instructional and pedagogical support needed to plan effectively and enhance teaching practices. These resources aim to build confidence and empower educators in their roles as math teachers.

Resources Include:

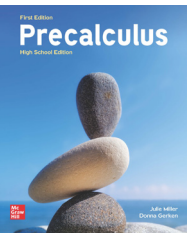
- **Professional Learning Overview:** A guide for teachers and administrators that outlines available professional learning resources with tips for usage.
- **Instructional Resources:** A comprehensive overview of key curriculum features with implementation support to help teachers effectively plan units and lessons.
- **Data and Personalization Resources:** Deep insights into the reporting generated by *California Reveal Math* and guidance on how to personalize instruction accordingly.
- **Foundations for Success Videos:** A collection of foundational strategies embedded within the *California Reveal Math* curriculum design, narrated by our renowned authors and subject matter experts.
- **Unit Overview and Strategies Videos:** Key information and strategies specific to each unit to support teachers in planning, emphasizing connections to the Big Ideas.
- **Digital Teacher Center:** A hub including additional implementation resources such as lesson walkthroughs, support for coaches and administrators, and more.

Level Up with Electives

Fuel student engagement in third- and fourth-year math electives with programs designed to foster a deeper understanding of higher-level mathematical concepts, ignite a passion for learning, and lead students to success in college and beyond.

A Logical Approach to Mathematical Reasoning

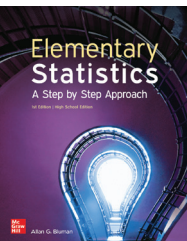
Precalculus, High School Edition ©2024, 1e, Miller



Precalculus provides students with a clear and logical presentation of basic concepts and scaffolding to develop the critical-thinking and problem-solving skills needed for course success. The program is crafted at the appropriate level for high school students to harness the essential skills, apply their knowledge, make connections to their everyday lives, and ultimately, master mathematic competencies. *ALEKS*® for *Precalculus*, available with the digital subscription, provides further adaptive, targeted practice.

Empower the Statistician in Every Student

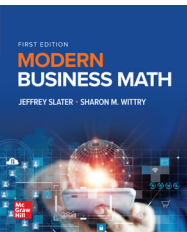
Elementary Statistics: A Step by Step Approach, High School Edition ©2024, 1e, Bluman



The quintessential text for students interested in a nontraditional math pathway, *Elementary Statistics* is accessible to, and engaging for, a wide range of students. The instructional design follows a non-theoretical approach and only assumes students have completed algebra. *ALEKS* for Introductory Statistics, available with a digital subscription, provides further adaptive, targeted practice

Engaging Content, Proven Techniques

Modern Business Math, © 2024, 1e, Slater



Help students grasp everyday math concepts needed to succeed in the workforce. From budgeting and financial analysis to taxes and problem-solving, students experience real-life situations, apply critical thinking skills, and learn how to solve problems that they can apply immediately to their personal or entrepreneurial pursuits.