

EUREKA MATH²®

GRADES K-5

Pathways to Mastery

Data and Differentiation



Deeper Thinking.
Greater Growth.



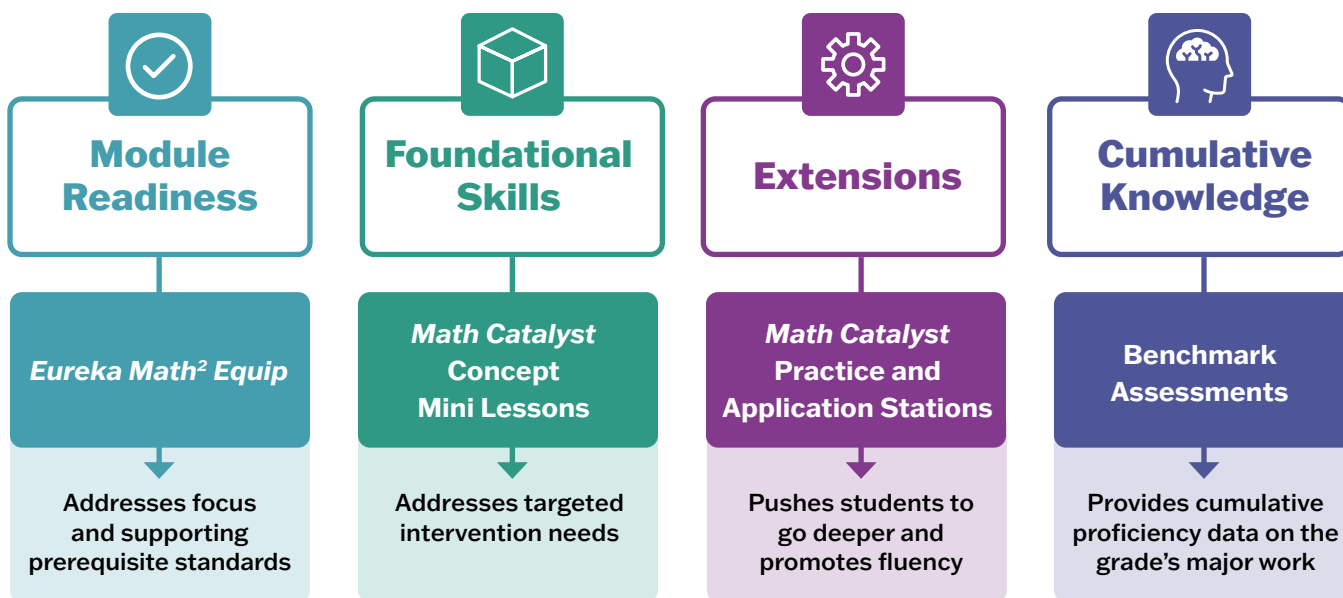
Multiple Pathways, One Goal: Mastery.

A Flexible System for Turning Assessment into Action

Every student's pathway to math proficiency is different, and effective assessment data makes those paths visible. *Eureka Math² Pathways to Mastery™* provides simple, flexible assessment pathways designed to meet the realities of K–5 classrooms while giving educators the insight they need to act with confidence.

Pathways to Mastery extends the embedded module, topic, and lesson assessments within *Eureka Math²*, bringing together three complementary components that support student growth.

Pathways to...



- **Eureka Math² Equip** diagnoses readiness by assessing key foundational prerequisites for upcoming modules.
- **Math Catalyst** delivers targeted intervention support aligned with concepts for grades K–5.
- **Benchmark Assessments** provide a cumulative view of proficiency and knowledge development over time.

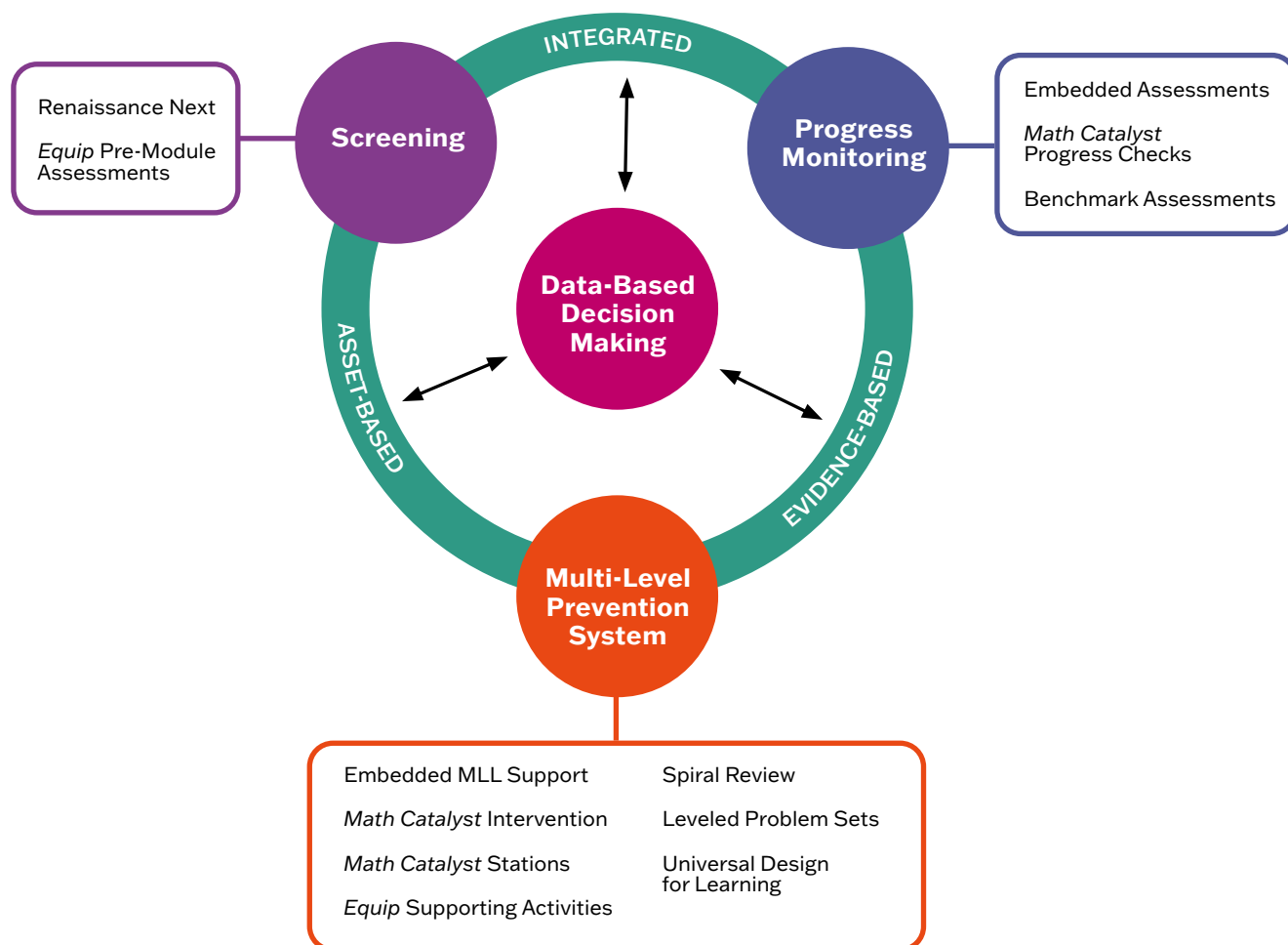
Collectively, these pathways create a connected approach to readiness, progress monitoring, and responsive instruction, empowering teachers to put every student on a path to mastery.

Multi-Tiered System of Supports

A strong Multi-Tiered System of Supports (MTSS) requires actionable data and high-quality instruction for every student. To have a successful MTSS implementation, schools need a flexible system that connects assessment results with consistent instructional practices across grade levels and aligns core curriculum with evidence-based intervention materials.

Eureka Math² Pathways to Mastery provides timely, standards-aligned data that helps educators identify learning needs and make informed instructional decisions.

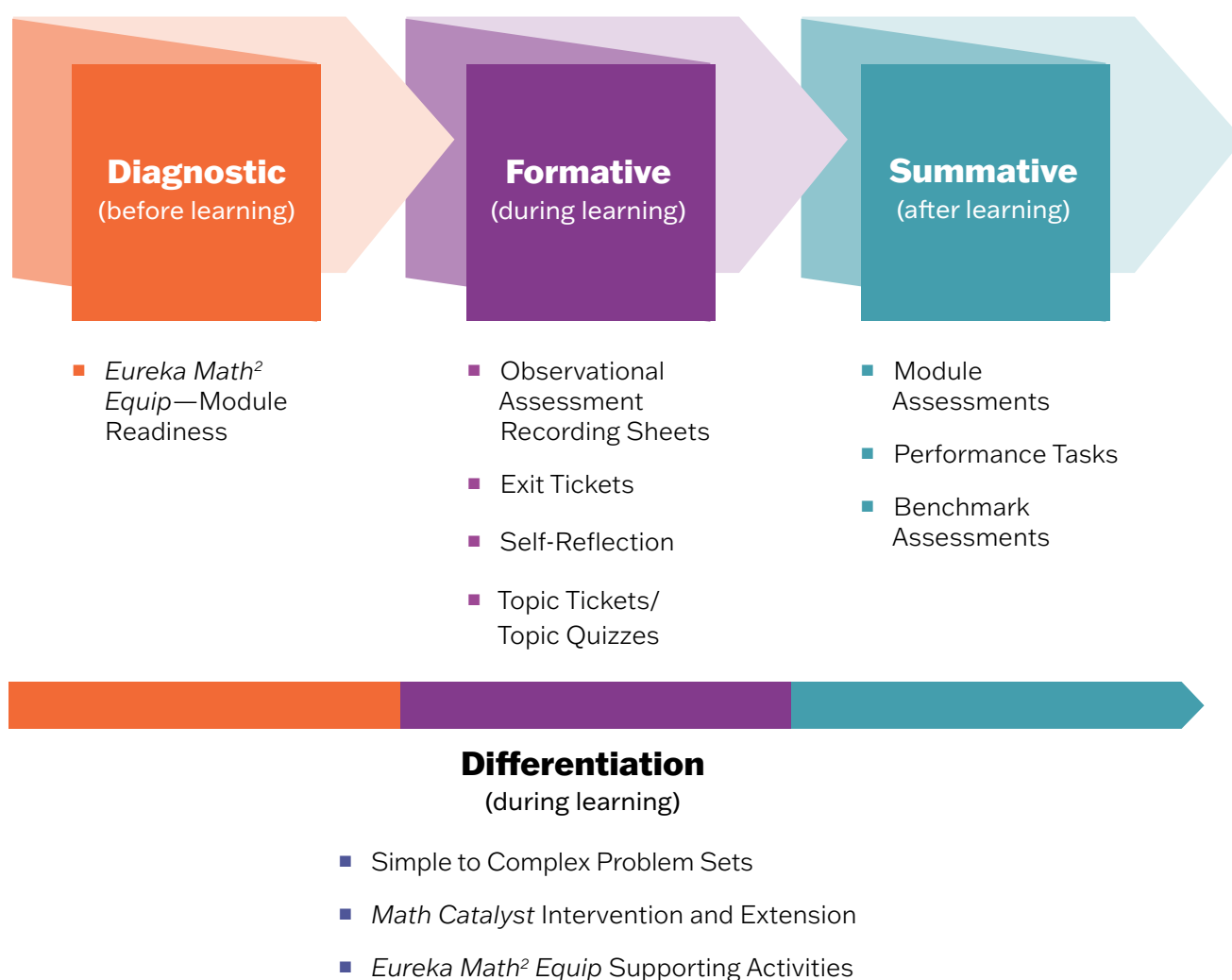
Eureka Math² Alignment with the MTSS Framework



Assessment Overview

*Eureka Math*² assessments are designed to strengthen instruction, clarify the most meaningful outcomes of learning, and provide teachers with actionable, trustworthy data. Assessment is an integral part of the coherent *Eureka Math*² curriculum, elevating and contributing to instructional goals for all students.

Assessment Journey





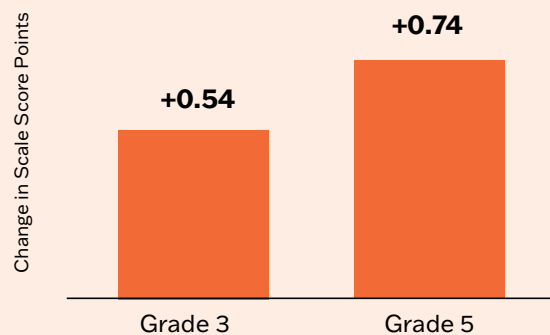
Evidence of Impact on Student Achievement

A University of Southern California-conducted study found that schools using *Eureka Math*² saw statistically significant gains in state assessment math scores compared to similar non-adopting schools.

Achievement gains were observed in Grades 3 and 5 and strengthened with continued implementation.

*Eureka Math*² Improves Student Achievement*

Compared to Similar Non-Adopting Schools



Source: Silver, D., & Polikoff, M. S. (2024). *Eureka Math*² Efficacy Study. University of Southern California. Study meets ESSA Tier II standards.

*As measured on state assessments

Insight into Student Understanding

To make assessment meaningful, *Eureka Math*² provides clear expectations and clear evidence of the learning journey through Achievement Descriptors and Proficiency Indicators.

A Achievement Descriptors— Defining What Students Should Know

Achievement Descriptors make standards-based instruction clear, accessible, and actionable. This coherence ensures teachers understand exactly what proficiency looks like for the lesson or module.

B Proficiency Indicators— Measuring How Deeply Students Understand

Proficiency Indicators interpret levels of understanding, giving teachers insight into how fully students demonstrate grade-level standards.

Together, Achievement Descriptors and Proficiency Indicators make student understanding visible and turn assessment into meaningful insight into what students understand and how deeply they understand it.

3.Mod1.AD6 Apply the distributive property to multiply a factor of 2–5 or 10 by another factor.			
Partially Proficient		Proficient	Highly Proficient
Apply the distributive property to generate equivalent expressions. Is each expression equal to 6×5 ? Circle Yes or No.		Apply the distributive property to multiply a factor of 2–5 or 10 by another factor. Break apart the 8 to find 8×4 . $8 \times 4 = (\underline{\quad} \times 4) + (\underline{\quad} \times 4)$ $= \underline{\quad} + \underline{\quad}$ $= \underline{\quad}$	Explain the distributive property for multiplication. Carla says she can find 16×5 by using the expression $(10 \times 5) + (6 \times 5)$. Is she correct? Explain.
$(4 \times 5) + (2 \times 5)$ Yes No $(2 \times 5) + (3 \times 5)$ Yes No $(4 \times 5) \times (2 \times 5)$ Yes No $(5 \times 5) + (1 \times 5)$ Yes No			

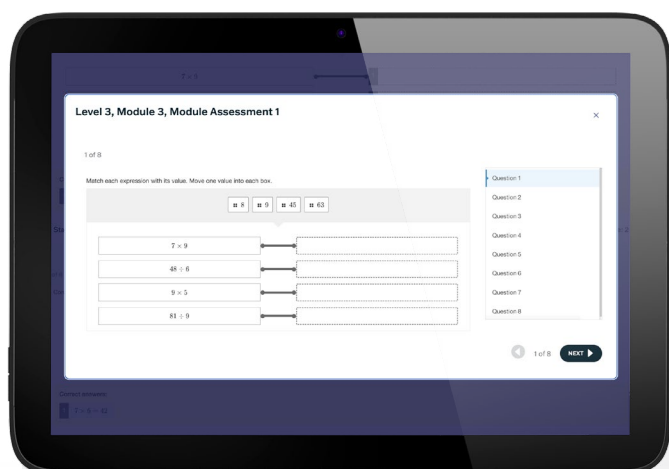
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Data-Rich Digital Platform

The Great Minds® digital platform delivers assessments that maintain coherence with *Eureka Math*² representations and models. With automated scoring, embedded accommodations, and visual reports, the digital platform provides the data to support classroom expertise.

Digital Tools for Teachers

Teachers can distribute assignments, assign and score assessments, monitor progress, and analyze student data within the platform. Reports provide clear visibility into class performance, individual student results, and progress against standards and Achievement Descriptors. These descriptive, actionable reports can support responsive instruction and inform next steps.



Digital Access for Students

Students can easily launch digital assessments during class and engage with a suite of interactive, technology-enhanced item types. Drag-and-drop tools, graphing features, equation builders, and constructed response items allow students to practice the question types found on state assessments.

Prepping for New Learning

Measure Prerequisite Skills with *Eureka Math² Equip*

Before the learning begins, diagnostic assessment powered by *Eureka Math² Equip* supports teachers with a clear understanding of students' foundational knowledge for upcoming modules.

- Pre-Module Assessments measure prerequisite skills needed for the upcoming module
- Robust reporting with recommendations for grouping
- Just-in-time supporting activities to help students access core grade-level instruction
- Available for Grades 1–Algebra I in English and Spanish
- Available digitally and as PDFs for download

EUREKA MATH² EQUIP 4 • M1 • Pre-Module Assessment

Pre-Module Assessment Name _____ Date _____

1. Which choices are equivalent to 315? Choose the **two** correct answers.

A. 3 hundreds 1 ten 5 ones
 B. 1 hundred 3 tens 5 ones
 C. 5 hundreds 3 tens 1 one
 D. 3 hundreds 15 ones
 E. 3 hundreds 15 tens
 F. 315 hundreds

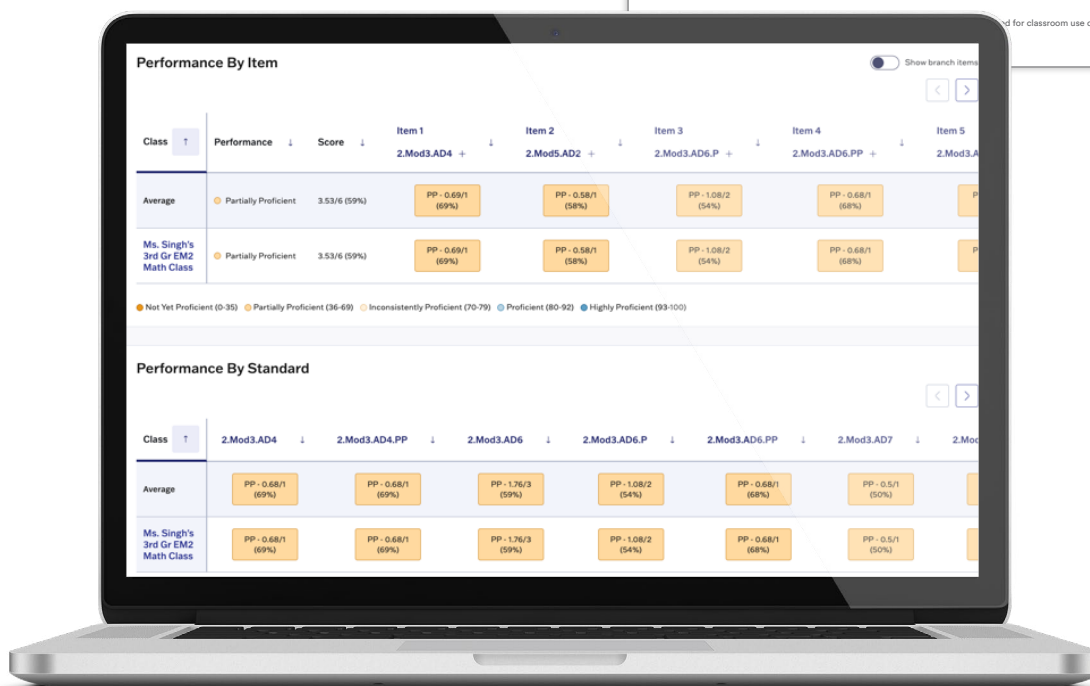
2. Complete the table. Write one of the given answer choices in each box.

Standard Form	Expanded Form	Word Form
		one hundred nine
191		

Answer Choices

109	100 + 90 + 1	1 + 9 + 1	one hundred ninety-one
190	100 + 9 + 1	10 + 9	one hundred nineteen
199	100 + 9	1 + 9	one hundred ninety

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Formative Assessment During Learning

All *Eureka Math*² assessments are formative in nature, designed to monitor progress and inform instruction so teachers can make real-time course corrections to support grade-level proficiency.

Observational Recording Sheets include checklists to assess, reflect, and respond to student progress on learning goals within each topic.

- 1 per topic for all grades
- Available in the *Teach* book

Exit Tickets assess proficiency for each lesson and include a self-reflection so students can think critically about their understanding and progress.

- 1 per lesson for Grade 1–Algebra I
- Available in the *Learn* book

Topic Tickets and Topic Quizzes measure proficiency at the topic level and include Sample Solutions within the *Teach* book to better understand expected student responses.

- 1 per topic for Grades 1–2
- 3 analogous versions per topic for Grades 3–Algebra I
- Available for download and to take digitally for Grades 1–Algebra I
- May also be used as a summative assessment

The image displays three sample assessment forms from the Eureka Math² Pathways to Mastery series.

Observational Assessment Recording Sheet: This form is for Grade 3 Module 1 Topic A, Multiplication and Division with Units of 2, 3, 4, 5, and 10, specifically for Conceptual Understanding of Multiplication. It includes a table with columns for Achievement Descriptors and Dates and Details of Observations. The Achievement Descriptors section includes 3.Mod1.AD1, which asks students to represent a multiplication situation with a model and convert between several representations of multiplication. A note specifies that this excludes the creation of a multiplication situation from an expression, an equation, or a model, which is reserved for module 3.

EXIT TICKET: This form is for Topic A, Lesson 2. It includes a self-reflection prompt: "I can represent equal groups with a multiplication equation." Below this, it asks students to use equal groups of fingers for parts (a)–(d). Part (a) asks for the number of groups of 10 fingers in four groups of two hands. Part (b) asks students to fill in the blanks to show the total. Part (c) asks for the number of tens in the total. Part (d) asks students to fill in the blanks to match the picture.

TOPIC QUIZ A-1: This form is for Topic A. It includes a self-reflection prompt: "I can represent equal groups with a multiplication equation." Below this, it asks students to complete the multiplication equation to describe the picture. The picture shows four groups of two apples each. The equation is: (Number of groups) × (Number in each group) = (Total). Below this, it asks students to draw an array to represent Liz's shells. Part B asks students to complete the multiplication equation to describe how many shells Liz has. The equation is: (Number of rows) × (Number in each row) = (Total). Part C asks students to draw an array to represent Liz's shells.

Summative Assessment

Measure proficiency with major concepts, skills, and applications against standards over time with summative assessments. These assessments include a variety of technology-enhanced items found on annual state tests, including fill-in-the-blank, short answer, multiple-choice, and constructed response. All assessments are designed for use formatively, but they may also be used as summative assessments at the teachers' discretion.



Module Assessments evaluate student proficiency with the major concepts, skills, and applications at the end of each module.

- Choice of 2 analogous versions per module
- Administered interview-style for prekindergarten and kindergarten
- Available in the *Teach* book and for download for Grades 1–Algebra I
- Available to take digitally for Grades 1–Algebra I
- Available in Spanish

EUREKA MATH² 4 • MS • Module Assessment 1

Module Assessment Name _____ Date _____

1. Complete each equation.

$\frac{2}{10} = \frac{\square}{100}$

$\frac{5}{10} = \frac{\square}{100}$

2. Add.

$\frac{4}{10} + \frac{32}{100} = \square$

$\frac{61}{100} + \frac{8}{10} = \square$

3. Think about the decimal numbers 0.4 and 0.25.

Part A
Use >, =, or < to compare the decimal numbers.
0.4 0.25

Part B
Plot and label 0.4 and 0.25 on the number line to justify your answer.

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EUREKA MATH² 4 • MS • Module Assessment 1

4. Match each area model with the fraction and decimal number the shaded part represents. Write one value from the given answer choices in each box. Each large square represents 1.

Area Model	Fraction	Decimal Number

Answer Choices

$\frac{6}{1}$	$\frac{6}{10}$	$\frac{6}{100}$	$\frac{19}{10}$	$\frac{19}{20}$	$\frac{19}{100}$
0.06	0.6	6.0	0.19	1.9	19.0

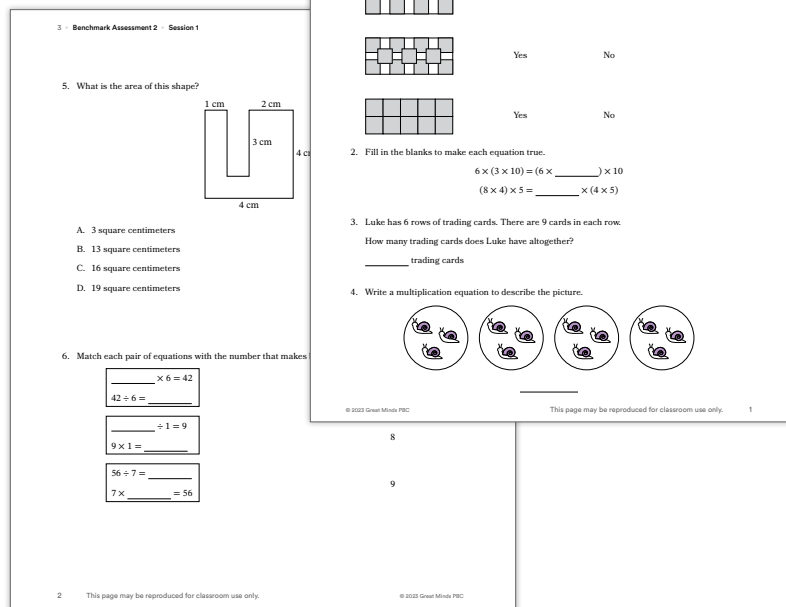
5. Write each fraction in decimal form.

$\frac{4}{10} = \square$

$\frac{34}{100} = \square$

$\frac{5}{100} = \square$

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Benchmark Assessments assess student proficiency with math skills and concepts from the previous modules to review skills that reflect the major work of the grade.

- Administered 3 times per year to assess cumulative learning
- Available for download in Grade 1–Algebra I
- Available to take digitally in Grade 3–Algebra I
- Available in Spanish

Performance Tasks are activities that assess students on content and practice standards by asking them to apply their understanding and skills to solve knowledge-rich context problems. These activities emphasize real-world application, problem-solving skills, and critical thinking, allowing teachers to evaluate how students apply their knowledge in various contexts.

- Leverages mathematical practices
- Suggests next steps in student learning based on responses
- 6 tasks per grade
- Available for download in the digital platform
- Available in Spanish

Board Game Design

Sal makes a game in which players must find a path from start to finish that totals 100.

To play the game, follow these rules:

- Start at any number in the bottom row.
- Move up a row and select a number in that row.
- Keep moving up rows and selecting numbers until you have reached the top row and you have a total of 100.

Use each game board to find a different path that totals 100. The first one is started for you.

Show and tell how you know.

FINISH		
17	21	28
29	33	32
38	27	24
12	16	23
START		

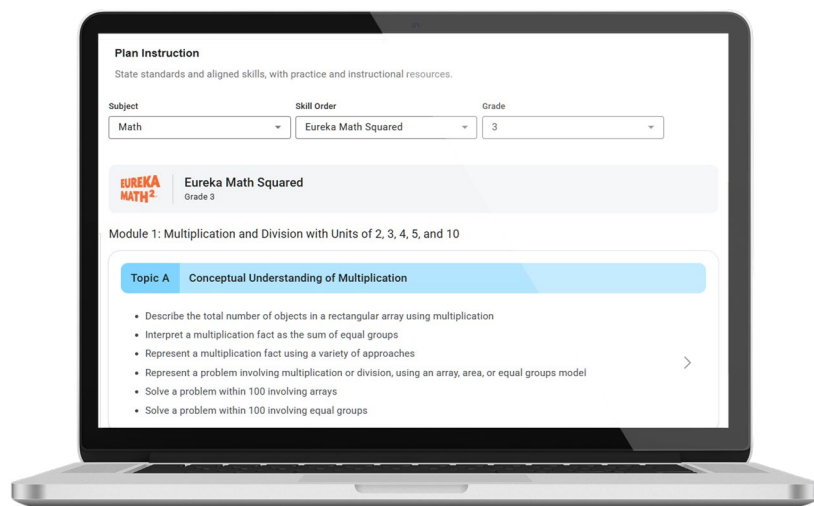
FINISH		
17	21	28
29	33	32
38	27	24
12	16	23
START		

FINISH		
17	21	28
29	33	32
38	27	24
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START		

Renaissance Alignment

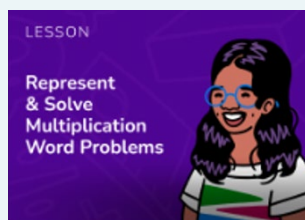


Renaissance and Great Minds have partnered to unify data with differentiation on Renaissance Next®, an AI-powered experience. This integration connects lesson and intervention materials from *Eureka Math*² with data from Star Math® assessment and Freckle®, reducing teacher planning time and streamlining workflows.

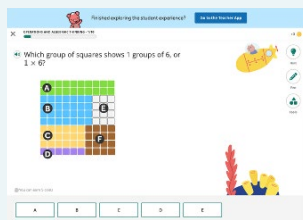


Renaissance Next and *Eureka Math*² users can

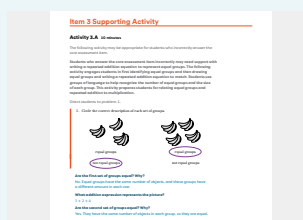
- maximize learning outcomes using direct links from Renaissance Next to recommended *Eureka Math*² content,
- support the screening, progress monitoring, and data-based decision-making required for a Multi-Tiered System of Supports (MTSS), and
- propel learning forward with Tier 1, 2, and 3 resources recommended from one consolidated data source.



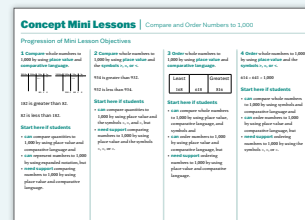
Renaissance Nearpod
Teacher-led topic-level lessons



Renaissance Freckle
Adaptive digital practice and ongoing data



Eureka Math² Equip
Supporting Activities
Pre-requisite skill activities



Math Catalyst
Tier 2 & 3 Intervention
Concept Mini Lessons and
Tier 1 Extension games and activities

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Data-Driven Differentiation with *Math Catalyst*

Math Catalyst provides teachers with targeted resources that reinforce and extend *Eureka Math*² learning. Spanning seven strands, *Math Catalyst* supports students in building proficiency across K–5 standards and closing gaps while staying connected to grade-level learning.

Components

Concepts are organized into progressions within each strand. Every concept includes ready-to-use components that work seamlessly in teacher-led small groups or independent and collaborative stations. These components include all student materials in Spanish.

Concept Guide	Includes preparation material, student misconceptions, language supports, and family support	
Progress Check	Measures student proficiency to guide instructional decisions	
Concept Mini Lessons	Provides small-group instruction on 76 concepts across nearly 300 mini lessons	
Practice	Provides spaced retrieval, repetition, and spiral review opportunities	
Application	Provides opportunities for extension and building fluency and automaticity	

Two Student Rotations

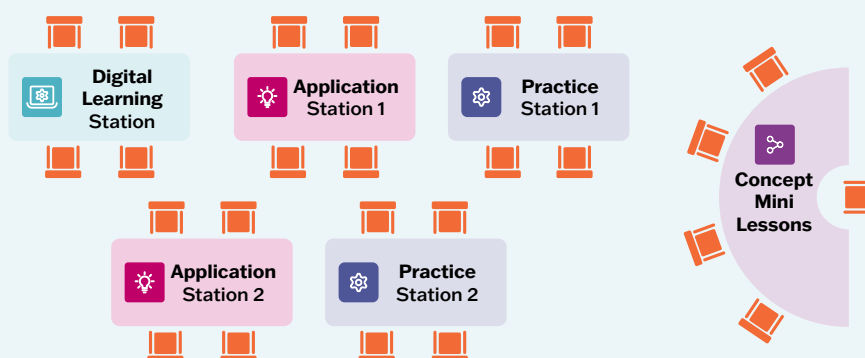


Independent, Partner, or Group Work

- Practice
- Application

Teacher Facilitated

- Concept Mini Lessons
- Progress Check



Math Catalyst content is arranged into seven strands. Teachers have access to all content and can leverage it from any grade to meet their students' needs.

- Address on-level practice, remediation, and advanced learning
- Address learning gaps in any grade

Assessments within *Math Catalyst* Concept Mini Lessons provide regular checkpoints for students to show their understanding and for teachers to determine the next steps in students' learning pathway. These assessments empower students to take ownership of their progress, engage in self-reflection, analyze mistakes, and celebrate their success.

Each Concept Mini Lesson includes Analyze Student Progress questions and prompts, helping teachers quickly gauge understanding and plan effective small-group activities.

The Progress Check Tool assesses proficiency with the skills and concepts aligned with each Mini Lesson objective. They can be used before, during, or after direct instruction.

NAME _____		DATE _____
Progress Check Tool Locate Numbers on a Number Line		
1	Complete the number line to show the number between two tens. 54 	
2	Complete the number line to show the number between two hundreds. 685 	

An Observational Data Recording Sheet is provided for every concept. This versatile tool can be used to record student performance on any *Math Catalyst* component.

Targeted Intervention, Practice, and Application

Math Catalyst strengthens *Eureka Math*² outcomes by providing teacher-led Tier 2 and Tier 3 intervention, aligned games, activities, and practice that bridge connections while giving students opportunities for collaboration and fluency.



Concept Mini Lessons

Teachers can use their center time to address learning gaps and misconceptions with 10-minute, targeted Concept Mini Lessons that can be delivered for individual or small-group Tier 2 and Tier 3 intervention.

Practice Stations

These stations provide multiple practice pages per concept that are sequenced from simple to complex for differentiation. These tiered practice pages include Practice Helpers, which provide students with support during their independent work.

NAME _____ DATE _____

Practice Page 1 | Represent multiplication facts with equal groups.

Circle and count equal groups. Count and label how many are in each group. Fill in the blanks.

1 There are _____ groups of eggs.
 There are _____ eggs in each group.
 There is a total of _____ eggs.

Number of groups $\times$ Number in each group = Total

2 There are _____ groups of crayons.
 There are _____ crayons in each group.
 There is a total of _____ crayons.

Number of groups $\times$ Number in each group = Total

MATH CATALYST | © 2025 Great Minds[®] FSC This page may be reproduced for classroom use only. Practice | Student Page 4

Application Stations

These stations provide meaningful on-level and extension opportunities by using Application activities as independent or collaborative work. Application stations create opportunities for students to communicate mathematically and engage in self-directed learning.

Students can engage in multiple types of problem-solving experiences, such as the following:

■ Solve a Problem

Application | Solve a Problem

Word Problem Cards

1. Ms. Bell partitions a board into equal parts, as shown. What are the parts of the board called?

2. Mr. Hall splits a dog treat into equal parts for his dogs, as shown. What are the parts of the dog treat called?

3. Kate cuts a pie into equal parts, as shown. What are the parts of the pie called?

■ Play a Game

Application | Play a Game

Game Instruction Card

Multiplication Top It

What You Need

- Game board (cards for a standard deck of playing cards with Ace, 2, 3, 4, 5, 6, 7, 8, 9, 10, Jack, Queen, King, and Ace removed. Aces can represent 1.)
- Square with two optional numbers (optional)

How to Play

1. Sit up the cards. Deal the same number of cards to each player. Put the cards into a stack.
2. At the same time as the other player, turn over 2 cards.
3. Multiply the numbers. Flip the product.

How to Win

The player with the most cards at the end of the game wins.

■ Study a Solution

NAME _____ DATE _____

Application | Study a Solution

David solved the problem below. Read the problem and look at David's work. Then answer the questions.

The nature center has 3 fish tanks. There are 3 fish in each tank. How many fish does the nature center have?

David's Work

The nature center has 3 fish.

1. How is the known information in the problem represented?
2. How is the unknown information in the problem represented?
3. How does the drawing help you see a solution path for finding the unknown?
4. Does the statement answer the question? How do you know?

■ Solve a Task

NAME _____ DATE _____

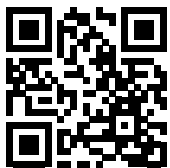
Application | Solve a Task

Pizza Shop

Pam works at a pizza shop. The menu shows different ways Pam can cut a pizza.

1. Hope wants a pizza cut into halves. Which pizza should Hope order?

EUREKA MATH²®



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greatminds.org/math/eurekamathsquared

