Ms. Goodfellow is the director of the Music Program at Union Middle School. She is completing the scheduling for next year’s students. She needs to reorganize that the same number of students are in each music class or the number of music classes.

**Use the double number line values.**

1. If Mrs. Goodfellow ...
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Launch the Software as a Student

Username: ____________________________
Password: ___________________________

FIRST TIME SIGNING IN
2. Click Set Your Password.
3. Enter your school name.
4. Enter your username (given to you by your teacher).
5. Click Next.
6. You will be prompted to enter and confirm a password of your choice, and then click Set Password.
7. You will be returned to the Sign In page to sign in to your MyCL account.

TO LAUNCH THE SOFTWARE
2. Enter your username.
3. Enter your password.
4. Click Sign In.
5. You will be prompted to enter your school name.
6. Click Sign In.
7. From the MyCL portal page, click the MATHia button that has your class name listed above it.
KEY FEATURES OF THE STUDENT SOFTWARE

Pre-Launch Protocol / Getting Started

The Pre-Launch Protocol / Getting Started module is presented at the beginning of each course in the software. It provides an overview on how to use the various tools in the MATHia® Software and introduces key learning science topics.
KEY FEATURES OF THE STUDENT SOFTWARE

Unit Overview

The Unit Overview page engages you in the learning experience, and gives you a clear set of learning goals, a link to the real world, and a connection back to the math you already know so that you can build on it throughout the unit.

- Learning goals for the unit are listed here.
- The Key Terms that are introduced in the unit are available here, hyperlinked to their entries in the glossary.
- Video that links the math back to the real world and outlines what you will be learning is located here.
- Math content areas that you should be familiar with before beginning this unit are listed here.

[Image of the Unit Overview page with annotations]

Video that links the math back to the real world and outlines what you will be learning is located here.
KEY FEATURES OF THE STUDENT SOFTWARE

Step by Step

The Step by Step demonstrates how to use the tools in a lesson by guiding you step by step through a sample math problem.

STARTING A STEP BY STEP

When you click Let’s Go!, the Step by Step will begin automatically.

Basic Instructions:

1. Read the scenario.
2. Read the hint in the little window and try to answer the question. If you don’t know the answer, you can guess. This will not affect your skill level.
3. If you enter the wrong answer twice, the system will correctly complete the step for you. Take some time to think about why the suggested answer is the correct one.
4. Continue answering the questions until you complete the problem.
5. Click Go to Problem to go to the required math problems.

You can Go to Problem at any time and toggle between the example and your problem as needed.

A student Crew Member will walk you through each step of the problem.

Step by Step is located here. When working on a problem, you can refer back to the Step by Step for assistance.
KEY FEATURES OF THE STUDENT SOFTWARE

Text to Speech

New! Text to Speech is now available throughout MATHia to support you as you work through the content.

Click the speech bubble on the screen to enable Text to Speech. This will also highlight the text. Stop and Pause buttons are available to give you further control.

You can select which voice you hear, or customize the speed and pitch at which it reads, from the Preferences menu. The Text to Speech tool can also be turned on in the Preferences.
KEY FEATURES OF THE STUDENT SOFTWARE

Sample Problem

Sample Problems are available for most workspaces and can be used as a reference when working through other problems.

You can select the Sample Problem icon at any time to display the example and analyze it alongside the problem that you are currently working on.
KEY FEATURES OF THE STUDENT SOFTWARE

Hints

Hints are available throughout the software to help you solve the problem you're working on.

JUST-IN-TIME HINTS

When you make a common error, a Just-in-Time Hint will automatically appear. These are indicated by the arrow in a red text box.

ON-DEMAND HINTS

You can ask for a hint at any time while working on a problem by clicking the Hints icon.

There are multiple hints available for each question. The level of detail of On-Demand Hints increases as you ask for more help.
KEY FEATURES OF THE STUDENT SOFTWARE

System Help

System Help offers detailed assistance with the software tools and interface.

The System Help tool gives you helpful information on getting started and working with the software tools.

Keyboard Navigation

You can use keyboard commands to navigate the software without a mouse.

- Use Tab to move forward from position to position on the screen, and Shift + Tab to move backward. A blue halo around a focused control shows you your current position.
- Use Enter or the Spacebar to press a button or open a dropdown list.
- Use the Arrow keys to navigate a dropdown list.
- Use Enter or the Spacebar to select a list item.
- Use the Arrow keys to navigate a group of radio buttons or checkboxes.
- Use the Spacebar to select and deselect radio buttons or checkboxes.

Some of the tools in the software have custom keyboard controls. Follow the links to learn more about using the Number Line, Graphs, and Solver without a mouse.
KEY FEATURES OF THE STUDENT SOFTWARE

Glossary

The Glossary is available throughout the software. It contains a list of definitions and examples for key mathematical terms used throughout the curriculum.

The Glossary opens automatically when you click on any of the key terms links in the lesson page. For example, choosing the link **mean** in the lesson opens the Glossary entry for mean as shown.

From the search tab of the Glossary, use the find box at the top left to search for a topic or term. You should enter complete words, but do not be too detailed, as the search is based on exact matching of the words entered. Any topic or term in the Glossary with text that matches your search will be displayed in the left window, in alphabetical order. Click on the term in the left window that you wish to view, and a definition and example for the term will appear in the right window.

The Glossary is located in the top menu bar.

The Glossary is also available in Spanish and can be accessed by clicking the **Español** button at the top.
KEY FEATURES OF THE STUDENT SOFTWARE

Progress Meter

The Progress Meter shows a summary of the major skills that are being covered in a given problem solving workspace as well as your progress on those skills.

PROGRESS METER

The Progress Meter helps students visualize progress through a workspace. The Progress Meter has two views: Summary and Detail. The Summary View is the default view providing a quick, at-a-glance summary. The Detailed View shows the more detailed progress or skill information. Collapse or expand the Progress Meter at any time to access.

Concept Builder workspaces focus on developing understanding of math concepts. These workspaces provide essential learning to prepare for Mastery workspaces that follow. Concept Builder workspaces occurring at the end of a Unit help make important connections and/or summarize the learning from the previous workspaces. In Concept Builder Workspaces, the Progress Meter shows students which step they are on in the current problem, how many steps are left, and how many problems are left in the workspace.
Mastery workspaces provide highly individualized and self-paced instruction to deepen conceptual understanding of the mathematics. The Progress Meter in Mastery workspaces shows progress toward skill mastery. Each skill’s name, such as “Calculate quotient,” is displayed alongside a corresponding progress ring that adjusts with the level of mastery. The level of mastery is not a percent of correct and incorrect responses. Rather, it’s a predictor of the probability that you will be able to demonstrate that skill again in the future. Progress rings move from blue to green to indicate mastery.

**SKILL TRACKING BEHAVIOR**

At the beginning of a given unit, the initial skill levels will not be zero, because it is likely that you may already be familiar with a skill or be able to learn it unassisted. With each correct answer, the level of mastery increases because there is a greater probability that you understand the skill and will be able to complete a similar task in the future. Answering incorrectly or asking for a hint usually indicates incomplete understanding of a given skill, so its level of mastery may decrease as a result. For some skills, it is likely that reading a hint will increase understanding, so the level of mastery may increase in that situation. Similarly, for some skills, it is likely that by answering incorrectly, you will “learn from your mistake,” so in those cases the level of mastery may increase as well. Note that the level of mastery will no longer increase from getting hints at a certain point, even if you continually request hints, so it’s not possible to “hint” your way through to complete a unit.
Instructional Tools

MATHia features five different instructional strategies that you will experience as you work through the problems. The five types of workspaces are balanced to make sure you fully engage and develop your math skills.

**EXPLORE TOOLS**

Explore Tools give you the opportunity to investigate mathematical concepts, search for patterns, and look for structure in ways that make sense to you. These tools also provide optional supports for you as you answer questions and solve problems.

**ANIMATIONS**

Animations provide you with an opportunity to watch, pause, and re-watch demonstrations of various mathematical concepts. They are a way to connect the representations of different mathematical ideas to their abstract underpinnings through visual depictions and audio narration.
CLASSIFICATION TOOLS

Classification Tools allow you to apply your mathematical understanding by categorizing answers based on similarities. These tools also give you a way to demonstrate proficiency in recognizing patterns in problem structure.

PROBLEM SOLVING TOOLS

Problem Solving Tools give you highly individualized and self-paced instruction that adapts to your exact needs to deepen your conceptual understanding of mathematics. Through adaptive learning technologies, you engage in reasoning and sense-making.
WORKED EXAMPLES

Worked Examples give you a tool that helps you to question your understanding, make connections with the steps, and ultimately self explain. Analyzing Worked Examples also helps you to identify your own misconceptions, make sense of the mathematical concepts involved, and then, ultimately, to persevere in problem solving.

Consider the expression $35 + 17 + 105$. You can use the Commutative Property of Addition to simplify this expression.

The Commutative Property of Addition states that changing the order of numbers in an addition expression does not change the sum.

Instead of first adding in order from left to right, use the Commutative Property to rewrite the expression into sums that might be easier to compute mentally.

$35 + 17 + 105 = 35 + 105 + 17$

Now, add the numbers in order from left to right. So, $35 + 105$ is 140, and then 140 + 17 = 157.

You can add more efficiently by using the Commutative Property to rearrange the addends in addition expressions.

Examine the worked example and then answer each question.

Let's consider the original expression from the worked example: $35 + 17 + 105$.

Add the numbers in the expression in their original order.

$35 + 17 = \boxed{52}$

$105 = \boxed{105}$

In the worked example, the addends were added in a different order.

The Commutative Property was used so that $35 + 105$ could be added first.

That result is a number ending with \textbf{no} zeros.
Motivational / Engagement Features

MATHia gives you a variety of tools and customization features that enable you to create a unique learning experience.

You can access the customization features by clicking on the avatar on your MATHia homepage, or through the Preferences that display when you click on your name in the upper right hand corner.

HOMEPAGE

The homepage gives you a clear picture of the work that is ahead of you by showing you the modules, units, and number of workspaces that have been assigned to you.

Unlocked units have a Let's Go! or a Review button. Review indicates completed units that you can go back to and review.

Modules can be expanded or collapsed by clicking any empty part of their box.
GROWTH MINDSET LANGUAGE IN ANIMATION

Research shows students who believe that they can get smarter will work harder — in other words, learning about how learning changes the brain has been shown to increase students' confidence in their ability to learn. Within MATHia, we praise effort above innate ability.
AVATAR BUILDER

The Avatar Builder provides you with over 50 options and accessories to select from.
Customer Support

Customer Support is available to answer your questions about using the software.

Email: help@carnegielearning.com
Phone: 877.401.CLCS (2527) or 888.851.7094 (Select Option 1)
Chat: Visit www.carnegielearning.com/contact and click Customer and Tech Support to connect with us via chat.

Websites: Carnegie Learning MyCL Portal www.carnegielearning.com/login

Once logged in, Tech Support is available by clicking the Help Center button in the upper right hand corner.