



Ascend offers instruction in multiple modalities to address a variety of learning styles and preferences by combining:

1. Video instruction
2. Multimedia explorations to reinforce learning
3. Manipulatives to support the learning of difficult concepts
4. Guided interactive practice supported by immediate feedback to re-teach concepts and skills and reinforce new knowledge
5. Printable resources to extend learning and practice and support constructed response
6. Flash Card Math to build math fact literacy

Let's Get Started!

STUDENT HOMEPAGE

Ascend Math Home

Tony Lopez
HELP | LOGOUT

START LESSON REPORTS FLASH CARD MATH RESOURCES

6X3

Each flag represents the student's progress through a level.
Hover to see the name of the last unit completed.

Hover to see the name of the current unit in the level.

Each point on the mountain represents an objective in the current unit. The climber ascends to the next objective each time the student completes one.

Tony Lopez
You have completed 4 of 5 objectives in the unit:
Fractions Applications

Current Objective:
Multiplication & Division Applications of Fractions

Mount icons: Fuji, Matterhorn, Mount Olympus, Everest

Each point on the mountain represents an objective in the current unit. The climber ascends to the next objective each time the student completes one.

The mountain icons indicate each level the student has completed.

Level 2

Mount Fuji is in Japan. Artists like to paint it. Many people climb Mount Fuji in the summer.

Multiplication & Division Fractions

Student Lesson

STUDY GUIDE



Ascend Math®

Study Guide

- 1. Study Guide
- 2. Video
- 3. Explore
- 4. Practice
- 5. Post Assessment

Tony Lopez
HOME | HELP | LOGOUT

Study guides are available in both English and Spanish.

Use the Study Guide to take notes as you follow along with the video lesson.

After you watch the video, complete the practice problems at the end of the Study Guide.

Open Study Guide

Español

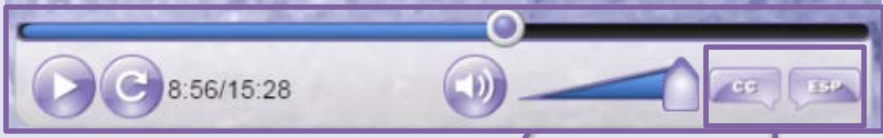
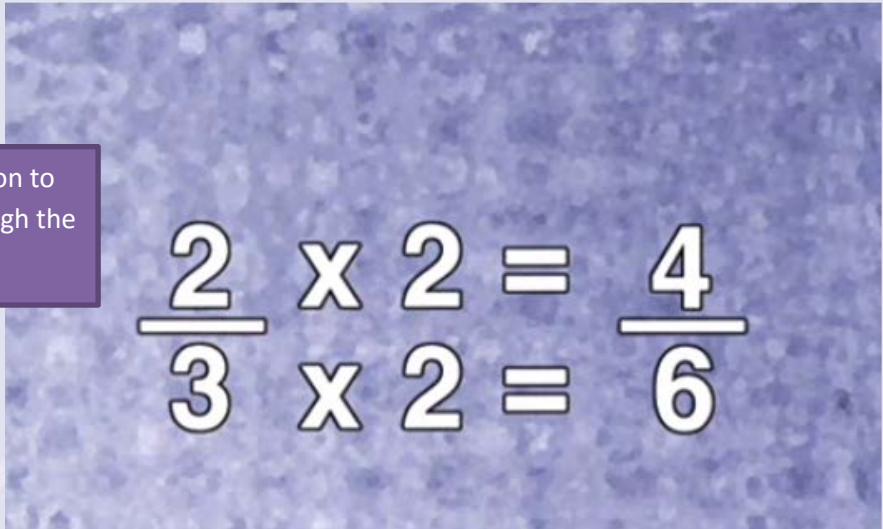
The image shows two side-by-side screenshots of the study guide interface. The left screenshot is the English version, and the right screenshot is the Spanish version. Both versions have a 'Close' button at the bottom. The English version has a 'Name' field, an 'Objective' section, and a 'Multiplication and Division Applications' section. The Spanish version has a 'Nombre' field, an 'Objetivo' section, and a 'Multiplicando y Dividiendo Aplicaciones' section. The English version has a problem: "How many $\frac{1}{4}$ pound hamburgers can be made from..." and another problem: "Of the students in a mathematics class, $\frac{2}{3}$ of them received A's. What part of the class received A's?". The Spanish version has a problem: "¿Cuántas hamburguesas de $\frac{1}{4}$ de libra se pueden hacer..." and another problem: "De los estudiantes de una clase de matemáticas, $\frac{2}{3}$ del curso $\frac{1}{8}$ recibieron A's. ¿Qué parte de la clase recibió...".

VIDEO INSTRUCTION

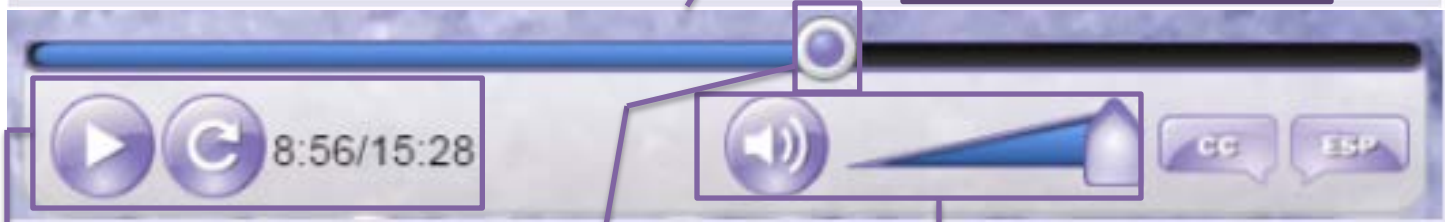


- 1. Study Guide
- 2. Video
- 3. Explore
- 4. Practice
- 5. Post Assessment

Click each icon to advance through the lesson.



All video lessons are captioned in English and Spanish.



Students can also adjust the volume of the video.

Students can play, pause, and rewind as needed to learn at their own individual paces.

EXPLORATIONS

Ascend Math[®] Explore

Tony Lopez

1. Study Guide 2. Video 3. Explore 4. Practice 5. Post Assessment

HOME | HELP | LOGOUT

Drag the parts to find the product of $\frac{2}{3}$ and $\frac{3}{4}$.

Drag the parts to find the product of $\frac{1}{2}$ and $\frac{3}{4}$.

What is the product of $\frac{1}{2}$ and $\frac{3}{4}$?

$\frac{2}{3}$
 $\frac{1}{6}$
 $\frac{4}{5}$
 $\frac{3}{8}$

Very Good! $\frac{1}{2}$ times $\frac{3}{4}$ is $\frac{3}{8}$.

You have completed the simulation.

Interactive manipulatives lead students through exploratory exercises, providing instant feedback and positive reinforcement.

GUIDED INTERACTIVE PRACTICE

 **Ascend Math**Practice

1. Study Guide 2. Video 3. Explore 4. Practice 5. Post Assessment Tony Lopez
HOME | HELP | LOGOUT

Number of Questions: 4

Incorrect

Check Answer

Show Answer

Next Question

Solution Video

1. Does the order of addends matter?

yes

Instant feedback is provided so the student knows exactly how well (s)he is doing.

Audio en Español

Ascend Math Español 

4 x

Does the order of addends matter?

No

$1+2=3$

$2+1=3$

For example, if we have one plus two, which is three, and two plus one, which is three. Notice that the answers are the same.

CC ESP

If the student is unsure how to get an answer, solution videos are provided for immediate re-teaching.

POST ASSESSMENT

Ascend Math® Practice

1. Study Guide 2. Video 3. Explore 4. Practice 5. Post Assessment

Tony Lopez
HOME | HELP | LOGOUT

Ascend Math® Post Assessment

Tony Lopez
HOME | HELP | LOGOUT

Number of Questions: 5

Submit

4. Name the property illustrated.

$$7 + 8 = 8 + 7$$

- Symmetric
- Commutative
- Distributive
- Associative


Once the student has progressed completely through the lesson, the post assessment will be unlocked.

Upon successful completion of a learning objective, the student will advance to the next objective in sequence.

If a student does not pass the post assessment, (s)he will be directed back to the beginning of the lesson.

Lesson Completion

REVIEW SHEET



Ascend Math®

Review

Tony Lopez

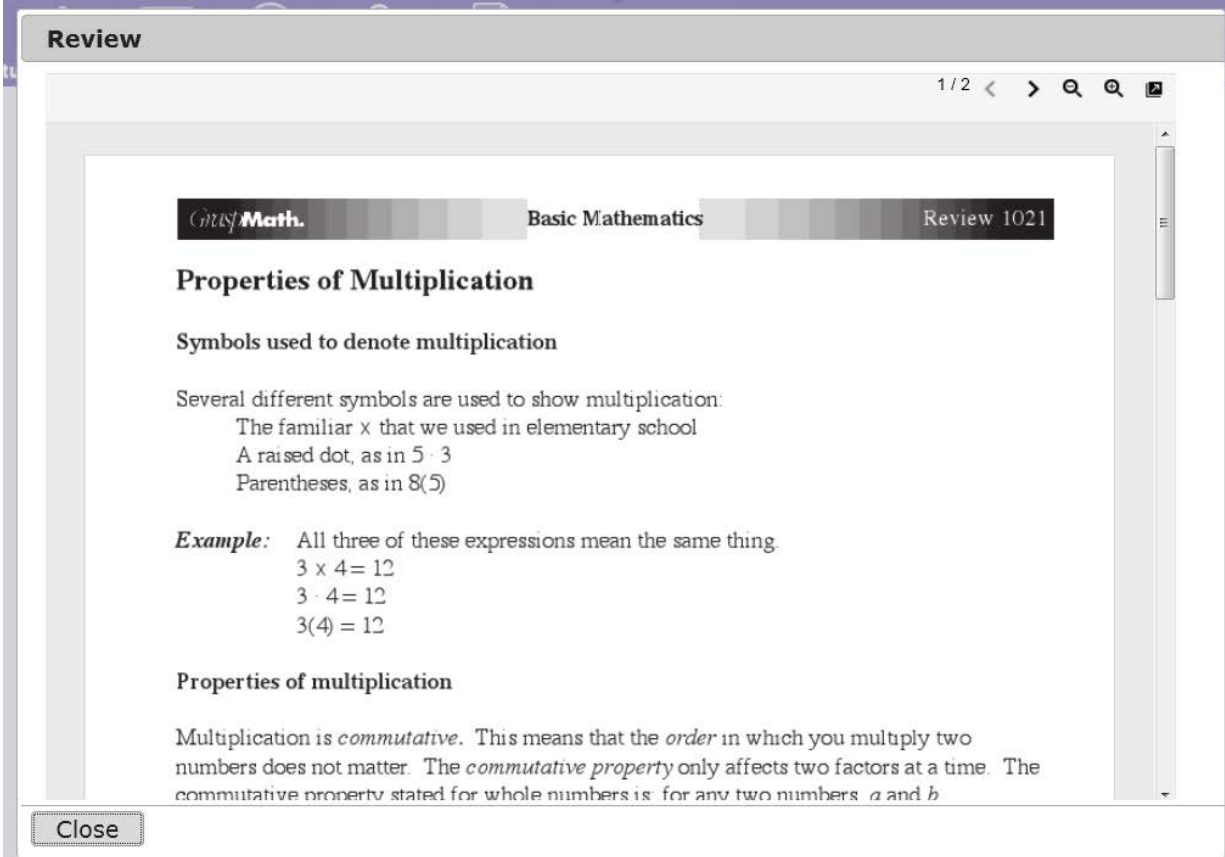
HOME | HELP | LOGOUT

1. Study Guide 2. Video 3. Explore 4. Practice 5. Review 6. Post Assessment

Study the Review sheet to learn more.

The review sheet should be studied before the student can attempt the post assessment again.

Open Review



Review

1/2 < > 🔍 🗨

Ascend Math. Basic Mathematics Review 1021

Properties of Multiplication

Symbols used to denote multiplication

Several different symbols are used to show multiplication:

- The familiar \times that we used in elementary school
- A raised dot, as in $5 \cdot 3$
- Parentheses, as in $8(5)$

Example: All three of these expressions mean the same thing.

$$3 \times 4 = 12$$
$$3 \cdot 4 = 12$$
$$3(4) = 12$$

Properties of multiplication

Multiplication is *commutative*. This means that the *order* in which you multiply two numbers does not matter. The *commutative property* only affects two factors at a time. The commutative property stated for whole numbers is: for any two numbers, a and b

Close

FLASH CARD MATH

Flash Card Math is included with each subscription.

Home

Antonio Lopez
HELP | LOGOUT

Flash Card Math

Your name: Antonio Lopez

Select the Operation.

Select a number, range, or preset.

Turn the timer on and off, or set a time limit.

Select the number of problems.

Start Quiz

Home

Antonio Lopez
HELP | LOGOUT

Flash Card Math

Antonio Lopez

Level
Addition of 6, 7

Time
00:28

Progress
2 of 40

Level
Addition of 6, 7

Time
00:55

Progress
4 of 40


7+8 = 15

Clear Submit

1 2 3 4 5
6 7 8 9 0

This box shows the student's current level, time, and progress.


STUDENT PROGRESS PAGE

**Ascend Math**Progress

START LESSON PROGRESS FLASH CARD MATH RESOURCES

Eddie Munoz
[HOME](#) | [HELP](#) | [LOGOUT](#)

Your current objective is: Multiplying Fractions
You have completed 0 of 5 objectives in the current unit.


Your current unit is: Fractions Operations
You have completed 3 of 21 units in the current level. 


Study Plan: (Click on the arrow to view details)
Sort By: Unit Objective

Unit Title	Objective Title	Code	Status	Post Assessment Score
▶ Whole Number Addition and Subtraction				
▶ Whole Number Multiplication and Division				
▶ Fractions Concepts				
▼ Fractions Operations				
	Multiplying Fractions	2071	In Progress	
	Dividing Fractions	2072	Not Started	
	Multiplying and Dividing Mixed Numbers	2073	Not Started	
	Adding and Subtracting Like Fractions	2081	Not Started	
	Adding and Subtracting Unlike Fractions	2082	Not Started	

Average Post Assessment Score: 0%

You have completed 2 levels.


Everest


Elbrus

The mountains on this page correspond with the mountains on the student's homepage.

Status
■ Mastered in the Pre Assessment
■ Mastered in the Course
■ Skipped
■ Objectives Assigned or in Progress

Learning Objectives for each unit will display when students open the Unit.

Unit Progress Bar: Units completed within the level

GROWTH MINDSET

In Ascend Math

Ascend Math Progress

Mioshi Lee

START LESSON PROGRESS FLASH CARD MATH RESOURCES HOME | HELP | LOGOUT

Your current objective is: **Introduction to Fractions**
You have completed 0 of 5 objectives in the current unit.

Your current unit is: **Fractions Concepts**
You have completed 4 of 23 units in the current level.

Last Login: 12/17/13 08:49:26 AM
Time Worked: Yesterday: 00:00:00 This Week: 00:00:00 Last Week: 00:00:00

Study Plan: (Click on the arrow to view details)

Sort By: Unit Objective

Unit Title	Objective Title	Code	Time on Task	Date Completed	Status	Post Assessment Score
▶ Whole Number Addition and Subtraction						
▶ Level 7 Demo Unit						
▶ Whole Number Multiplication and Division						
▶ Whole Number Factors and Multiples						
	Whole Numbers as Products of Prime Numbers	1051	00:40:54	12/02/13	Completed	100%
	Greatest Common Factor	1052	-	11/07/13	Completed	
	Least Common Multiple	1053	01:09:32	12/10/13	Completed	80%
▶ Fractions Concepts						
Average Post Assessment Score:						90%

Status

- Mastered in the Pre Assessment
- Mastered in the Course
- Skipped
- Objectives Assigned or In Progress

How is Growth Mindset incorporated in Ascend Math?
Ascend is different!
 We want to encourage not just gain in score, but also time on task and effort.
 Time on task means the student spent time carefully working through the lesson and practicing because this will eventually pay off!
 Ascend Math student progress reports outline a plan. Growth Mindset research shows that students with plans know it is possible to reach goals. Dividing Ascend Math levels into units allows students to achieve interim goals along the way.

You'll get it next time. The correct answer is $\frac{1}{2}$.

Continue

Good try, but you didn't find them all. These are the right answers: $\frac{4}{16}$ and $\frac{7}{28}$.

Continue

In Ascend we want to not only reward the correct answer, but also provide improvement related praise and encourage the student to try again if she got it wrong.

Com
15,9

Oops, looks like you forgot the comma! The correct answer is 15,936.


Continue

Write $\frac{2}{3}$ as an equivalent fraction with a denominator of 21.

Pause the video and try this one on your own!

Video feedback shows students that a missed answer is an opportunity to learn.

Three divided by four
 $3 \div 4 = \square$



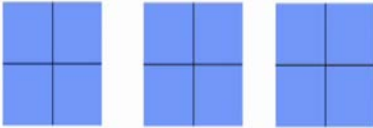
What fraction represents three divided by four?

a $\frac{3}{4}$ **b** $\frac{4}{3}$

Three divided by four
 $3 \div 4 = \square$

Close, but the correct answer is $\frac{3}{4}$.


Continue



Use the plus and minus buttons to try different factors.

4

- +



8 32

What is the GCF of 8 and 32?

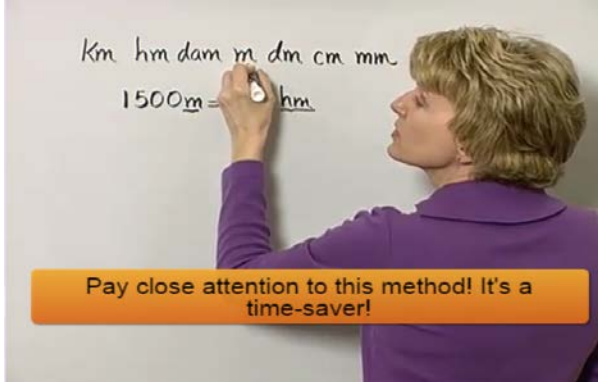
4 **Check**

That is a common factor, but it is not the greatest common factor. Please try a larger number.

Km hm dam m dm cm mm

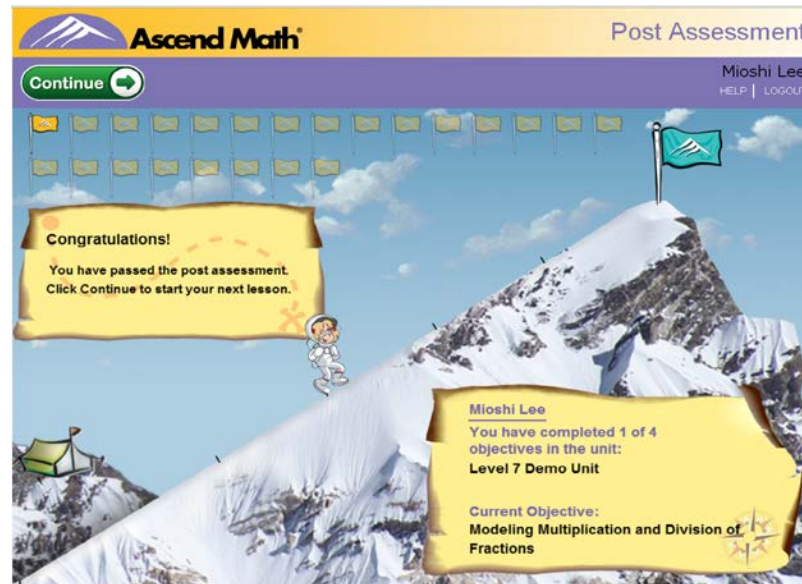
1500m = 1.5 km

Pay close attention to this method! It's a time-saver!



In Ascend we not only want to reward a passing post assessment score, but recognize that a good strategy was used or emphasize how the student can learn from the mistake made.

learn.



In Ascend we want to do more than just reward for passing an objective or for acing the pre assessment; we want to emphasize that learning is a process and mastery will come with hard work.

"Praising students' strategies, focus, effort, persistence, and improvement "takes the spotlight off fixed ability and puts it on the process of learning," Dr. Carol Dweck said and Ascend Math incorporates this research throughout the learning process.

Climb that mountain!



Base Camp

Ascend Math Home

Alfredo Diaz
HELP | LOGOUT

START LESSON PROGRESS FLASH CARD MATH RESOURCES

6X3

Base Camp

Base Camp Stats
Rank: Tenderfoot
Base Camp Passes: 10

Alfredo Diaz
You have completed 6 of 7 objectives in the unit:
Elementary Addition and Subtraction

Current Objective:
2&3 Digit Subtraction

Fuji
Matterhorn

Base Camp offers rewards for effort and time on task including:

- Games
- General Store
- Treasure Room



Sample Games include:

Hungry Bears

Space Blaster

Geo Block Drop

