

**Unit 2 Common Core State Standards**

<b>6.NS.1</b> Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.	<b>6.NS. 2</b> Fluently divide multi-digit numbers using the standard algorithm.	<b>6.NS.3</b> Fluently add, subtract, multiply, and divide using the standard algorithm for each operation.	<b>6.NS.3c</b> Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, given a part of a percent.	<b>6.NS.4</b> Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor
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**Unit 2 Essential Questions:**

- *How are Fractions, Decimals, and Percents Related?*
- *How can the quotients of fractions be modeled?*
- *How can knowledge of operations with fractions be applied to operations with decimals and percents?*

**Number Sense:**

- *Ways to make a number*
- *Ways to solve a math problem mentally*

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**Monday Engage NY Lesson 2-1**

Objective: Students use visual models, such as fraction bars, number lines, and area models, to show the quotient of whole numbers and fractions to show the connection between them and the multiplication of fractions. Students divide a fraction by a whole number.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 2-1 Examples 1-3 and Exercises 1-6
3. Exit Ticket: *Write an equivalent multiplication expression. Then, find the quotient in its simplest form. Use a model to support your response. 1.)  $\frac{1}{4}$  divided by 2    2.)  $\frac{2}{3}$  divided by 6*
4. Homework: Engage NY Lesson 2-1 Problem Set/Homework

## **Tuesday Engage NY Lesson 2-2**

Objective: Students use fraction bars, number lines, and area models to show the quotient of whole numbers and fractions and to show the connection between those models and the multiplication of fractions. Students understand the difference between a whole number being divided by a fraction and a fraction being divided by a whole number.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 2-2 Examples 1-2 and Exercises 1-5
3. Exit Ticket: 1.) *Henry bought 4 pies, which he plans to share with a group of his friends. If there is exactly enough to give each member of the group one-sixth of the pie, how many people are in the group?* 2.) *Rachel finished  $\frac{3}{4}$  of the race in 6 hours. How long was the entire race?*
4. Homework: Engage NY Lesson 2-2 Problem Set/Homework

## **Wednesday Engage NY Lesson 2-3**

Objective: Students use fraction bars and area models to show the division of fractions by fractions with common denominators.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: [http://www.youtube.com/watch?v=GOucLIm\\_vEc](http://www.youtube.com/watch?v=GOucLIm_vEc)
2. Classwork: Engage NY Lesson 2-3 Examples 1-3 and Exercises 1-6
3. Exit Ticket: 1.) *Find the quotient. Draw a model to support your solution.  $\frac{9}{4}$  divided by  $\frac{3}{4}$*  2.)  $\frac{7}{3}$  divided by  $\frac{2}{3}$
4. Homework: Engage NY Lesson 2-3 Problem Set/Homework

## **Thursday Engage NY Lesson 2-4**

Objective: Students use fraction bars and area models to divide fractions by fractions with different denominators. Students will make connections between visual models and multiplication of fractions.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=8Tv7WunDsLg>
2. Classwork: Engage NY Lesson 2-4 Examples 1-4 and Exercises 1-5
3. Exit Ticket: 1.) *Calculate each quotient. If needed, draw a model  $\frac{9}{4}$  divided by  $\frac{3}{8}$*  2.)  $\frac{3}{4}$  divided by  $\frac{2}{3}$
4. Homework: Engage NY Lesson 2-4 Problem Set/Homework

## **Friday Engage NY Lesson 2-5 & 2-6**

Objective: Students demonstrate further understanding of division of fractions by creating their own word problems. They will select a **partitive** division problem, draw a model, find an answer, choose a unit, and set up a situation.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=rRMKPzuotFs>
2. Classwork: Engage NY Lesson 2-6 Examples 1-2 and Exercises 1-2
3. Exit Ticket: *Write a story problem using the partitive interpretation of division for the following:  $25$  Divided by  $\frac{5}{8} = 40$*
4. Homework: Engage NY Lesson 2-6 Problem Set/Homework

## Mrs. Rayman's Daily Instructional Plan- Grade 6 Math

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Accessing Prior Knowledge</b> - <b>Where</b> are your students headed? Where have they been? How will you make sure the students know where they are going?	Warm Up: Fraction/Percent of the Day	Warm Up: Fraction/Percent of the Day	Warm Up: Fraction/Percent of the Day AND Video: <a href="http://www.youtube.com/watch?v=GOucLIm_vEc">http://www.youtube.com/watch?v=GOucLIm_vEc</a>	Warm up: Fraction/Percent of the Day AND Video: <a href="http://www.youtube.com/watch?v=GOucLIm_vEc">http://www.youtube.com/watch?v=GOucLIm_vEc</a>	Warm Up: Fraction/Percent of the Day AND Video:
<b>Guided Practice</b> - What events will help students <b>experience and explore</b> the big idea and questions in the unit? How will you equip them with needed skills and knowledge?	Direct Instruction: Engage NY Lesson 2-1 Examples 1-3 and Exercises 1-6	Direct Instruction: Engage NY Lesson 2-2 Examples 1-2 and Exercises 1-5	Direct Instruction: Engage NY Lesson 2-3 Example 1 and Exercises 1	Direct Instruction: Engage NY Lesson 2-4	Direct Instruction: Engage NY Lesson 2-6 Examples 1-2 and Exercises 1-2
<b>Independent Practice</b> - How will you cause students to <b>reflect and rethink</b> ? How will you guide them in rehearsing, revising, and refining their work? How will students work together to ensure mastery for all?	Student Ratio Notes and Homework: Engage NY Lesson 2-1 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 2-2 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-3 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-4 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-6 Problem Set/Homework
<b>Assessing Knowledge</b> - How will you help students to <b>exhibit and self-evaluate</b> their growing skills, knowledge, and understanding throughout the unit?	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations
<b>Differentiation/Accommodation</b> - How will you <b>tailor</b> and otherwise personalize the learning plan to optimize the engagement and effectiveness of ALL students, without compromising the goals of the unit?	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments
<b>Learner Outcome</b> - How will students <b>demonstrate</b> , as a result of lesson, their level of mastery? <ul style="list-style-type: none"> <li>● Understand</li> <li>● Know</li> <li>● Do</li> </ul>	Students use visual models, such as fraction bars, number lines, and area models, to show the quotient of whole numbers and fractions to show the connection between them and the multiplication of fractions. Students divide a fraction by a whole number.	Students use fraction bars, number lines, and area models to show the quotient of whole numbers and fractions and to show the connection between those models and the multiplication of fractions. Students understand the difference between a whole number being divided by a fraction and a fraction being divided by a whole number.	Students use fraction bars and area models to show the division of fractions by fractions with common denominators.	Students use use fraction bars and area models to divide fractions by fractions with different denominators. Students will make connections between visual models and multiplication of fractions.	Students demonstrate further understanding of division of fractions by creating their own word problems. They will select a <b>partitive</b> division problem, draw a model, find an answer, choose a unit, and set up a situation.

**Unit 2 Common Core State Standards**

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**Unit 2 Essential Questions:**

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**Monday Unit 2 Mid Unit Test**

**Tuesday Engage NY Lesson 2-11**

Objective: Students use estimation and place value to determine the placement of the decimal point in products and to determine that the size of the product is relative to each factor. Students will discover and use connections between fraction multiplication and decimal multiplication.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: [https://www.youtube.com/watch?v=\\_jcW-ZgpRbM](https://www.youtube.com/watch?v=_jcW-ZgpRbM)
2. Classwork: Engage NY Lesson 2-11 Exploratory Challenge and Exercises 1-4
3. Exit Ticket: 1.) *Calculate the product:  $78.93 \times 32.45$*  2.) *Paint costs \$29.95 per gallon. Nikki needs 12.25 gallons to complete a painting project. How much will Nikki spend on paint? Remember to round to the nearest penny.*
4. Homework: Engage NY Lesson 2-11 Problem Set/Homework

### **Wednesday Engage NY Lesson 2-12**

Objective: Students connect estimation with place value in order to determine the standard algorithm for division.

Agenda:

5. Warm up: Fraction/Percent of the Day AND Video:
6. Classwork: Engage NY Lesson 2-12
7. Exit Ticket:
8. Homework: Engage NY Lesson 2-12 Problem Set/Homework

### **Thursday Engage NY Lesson 2-13**

Objective: Students understand that the standard algorithm of division is simply a tally system arranged in place value columns.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video:
2. Classwork: Engage NY Lesson 2-13 Examples 1-2 Exercises 1-5
3. Exit Ticket: *Divide using the division algorithm:  $392,196 \div 87$*
4. Homework: Engage NY Lesson 2-13 Problem Set/Homework

### **Friday Engage NY Lesson 2-14**

Objective: Students use their knowledge of dividing multi-digit numbers to solve for quotients of multi-digit decimals and understand the mathematical concept of decimal placement in the divisor and dividend and its connection to multiplying.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=KT2rB6VlwPw>
2. Classwork: Engage NY Lesson 2-14 Examples 1-2 Exercises 1-7
3. Homework: Engage NY Lesson 2-14 Problem Set/Homework

## Mrs. Rayman's Daily Instructional Plan- Grade 6 Advanced Math

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Accessing Prior Knowledge -</b> <b>Where</b> are your students headed? Where have they been? How will you make sure the students know where they are going?	<b>Unit 2 Mid Unit Test</b>	Warm up: Fraction/Percent of the Day AND Video: <a href="https://www.youtube.com/watch?v=_jcW-ZgpRbM">https://www.youtube.com/watch?v=_jcW-ZgpRbM</a>	Warm up: Fraction/Percent of the Day AND Video:	Warm up: Fraction/Percent of the Day AND Video:	Warm up: Fraction/Percent of the Day AND Video:
<b>Guided Practice</b> - What events will help students <b>experience and explore</b> the big idea and questions in the unit? How will you equip them with needed skills and knowledge?		Direct Instruction: Engage NY Lesson 2-11 Exploratory Challenge Examples 1-4	Direct Instruction: Engage NY Lesson 2-12 Examples and Exercises	Direct Instruction: Engage NY Lesson 2-13 Examples 1-2 and Exercises 1-5	Direct Instruction: Engage NY Lesson 2-14 Examples 1-2 Exercises 1-7
<b>Independent Practice</b> - How will you cause students to <b>reflect and rethink</b> ? How will you guide them in rehearsing, revising, and refining their work? How will students work together to ensure mastery for all?		Student Notes and Homework: Engage NY Lesson 2-11 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-12 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-13 Problem Set/Homework	Student Notes and Homework: Engage NY Lesson 2-14 Problem Set/Homework
<b>Assessing Knowledge</b> - How will you help students to <b>exhibit and self-evaluate</b> their growing skills, knowledge, and understanding throughout the unit?		Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations	Exit Tickets and Teacher Observations
<b>Differentiation/Accommodation</b> - How will you <b>tailor</b> and otherwise personalize the learning plan to optimize the engagement and effectiveness of ALL students, without compromising the goals of the unit?		Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments	Pre written vocabulary & notes, extended time, preferential seating, reduced assignments
<b>Learner Outcome</b> - How will students <b>demonstrate</b> , as a result of lesson, their level of mastery? <ul style="list-style-type: none"> <li>● Understand</li> <li>● Know</li> <li>● Do</li> </ul>		Students use estimation and place value to determine the placement of the decimal point in products and to determine that the size of the product is relative to each factor. Students will discover and use connections between fraction multiplication and decimal multiplication.	Students connect estimation with place value in order to determine the standard algorithm for division.	Students understand that the standard algorithm of division is simply a tally system arranged in place value columns.	Students use their knowledge of dividing multi-digit numbers to solve for quotients of multi-digit decimals and understand the mathematical concept of decimal placement in the divisor and dividend and its connection to multiplying.