

# Mrs. Rayman's 6th Grade Math Weekly Lesson Plans

## Common Core State Standards

<b>6.RP.1</b> Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	<b>6.RP.2</b> Understand the concept of a unit rate $a/b$ associated with a ratio $a:b$ with $b$ not equal to 0, and use rate language in the context of a ratio relationship.	<b>6.RP.3</b> Use ratio and rate reasoning to solve real-world and mathematical problems, e.g. by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	<b>6.RP.3a</b> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
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**Essential Question:** *How do you use ratio concepts and ratio reasoning to solve problems?*

### Tuesday: Engage NY Lesson 1-16

Objective: Students associate a description of a ratio relationship, such as “5 miles for every 2 hours” to a new quantity, “2.5miles/hour” called a *rate*. Students will be able to identify the unit rate and the rate unit.

Agenda:

1. Warm up: Ratio of the Day AND “Unit Rates” Video: [https://www.youtube.com/watch?v=liW\\_ALj4Qj8](https://www.youtube.com/watch?v=liW_ALj4Qj8) OR [https://www.youtube.com/watch?annotation\\_id=2563e028-aff3-4a3f-bd3d-7bf8dcc45840&feature=cards&src\\_vid=IBP1TmBXIkY&v=ZejizwRUqgc](https://www.youtube.com/watch?annotation_id=2563e028-aff3-4a3f-bd3d-7bf8dcc45840&feature=cards&src_vid=IBP1TmBXIkY&v=ZejizwRUqgc)
2. Classwork: Engage NY Lesson 16 Exploratory Challenge
3. Exit Ticket: *Angela enjoys swimming and often swims at a steady pace to burn calories. At this pace, Angela can swim 1,700 meters in 40 minutes. What is Angela's unit rate? What is the rate unit?*
4. Homework: Lesson 16 Problem Set/Homework

### Tuesday: Engage NY Lesson 1-17

Objective: Given a rate, students will find ratios associated with the rate, including a ratio where the second term is one and a ratio where both terms are whole numbers. Students recognize that all ratios associated to a given rate are equivalent because they have the same value.

Agenda:

1. Warm up: Ratio/Rate of the Day AND “Ratios and Unit Rate” Videos: [https://www.youtube.com/watch?v=Dv\\_NVDjG1Rk](https://www.youtube.com/watch?v=Dv_NVDjG1Rk) or <https://www.youtube.com/watch?v=RQ2nYUBVvgI> (Note- this is a repeat from 2 weeks ago to teach UNIT RATES and Associating rates with ratios... or RAP <https://www.youtube.com/watch?v=l1JY3p-1BIQ>)
2. Classwork: Engage NY Lesson 17 Examples 1-6
3. Exit Ticket: *Tiffany is filling her daughter's pool with water from a hose. She can fill the pool at a rate of 1/10 gallons/second. Create at least three equivalent ratios that are associated with the rate. Use a double number line to show your work.*
4. Homework: Engage NY Lesson 17 Problem Set/Homework

## **Wednesday Engage NY Lesson 1-18**

Objective: Students make use of the structure of division and ratios to model as a quantity. Students interpret a rate as a division of two quantities, or better yet, as a fraction which is the first step toward converting measurement units using rates later on.

Agenda:

5. Warm up: Ratio/Rate of the Day AND “Engage NY Lesson 18” Videos: <https://www.youtube.com/watch?v=bWdg4BSAo-Q>
6. Classwork: Engage NY Lesson 18 Exercise 1
7. Exit Ticket: *Alexandra drove from Michigan to Colorado to visit her friend. The speed limit on the highway is 70 miles/hour. If Alexandra’s combined driving time for the trip was 14 hours, how many miles did Alexandra drive?*
8. Homework: Engage NY Lesson 18 Problem Set/Homework

## **Wednesday Engage NY Lesson 1-19**

Objective: Students solve problems by analyzing different unit rates given in tables, equations, and graphs.

Agenda:

9. Warm up: Ratio/Rate of the Day AND “Unit Price Video” <https://www.youtube.com/watch?v=aJ3Dr4pmvPw> or <https://www.youtube.com/watch?v=lnQHvGr9Ybc>
10. Classwork: Engage NY Lesson 19 Examples 1-3
11. Exit Ticket: *Kiara, Giovanni, and Ebony are triplets and always argue over who can answer basic math facts the fastest. After completing a few different math fact activities, Kiara, Giovanni, and Ebony record their data... (problem on students exit slips)*
12. Homework: Engage NY Lesson 19 Problem Set/Homework

## **Thursday Engage NY Lesson 1-20**

Objective: Students solve problems by analyzing different rates given in words, tables, equations, and graphs.

Agenda:

13. Warm up: Ratio/Rate of the Day AND Video: <https://www.youtube.com/watch?v=lnQHvGr9Ybc>
14. Classwork: Engage NY Lesson 20 Example 1 and Exploratory Challenge
15. Exit Ticket: *Value Grocery Mart and Market City are both having a sale on the same popular crackers. McKayla is trying to determine which sale is the better deal. Using the given table and equation, determine which store has the better deal on crackers? (Equation and Table written on Exit Ticket)*
16. Homework: Engage NY Lesson 20 Problem Set/Homework

## **Friday: Half Day of School- Records Day (PM Schedule)**

17. Warm up: Ratio/Rate of the Day AND Video:
18. Classwork: Kahn Academy and/or Compass Learning
19. Homework: Kahn or Compass Learning

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

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Accessing Prior Knowledge -</b> Where are your students headed? Where have they been? How will you make sure the students know where they are going?	Warm Up: Ratio of the Day AND "Unit Rates" Video: <a href="https://www.youtube.com/watch?v=liW_ALj4QI8">https://www.youtube.com/watch?v=liW_ALj4QI8</a> OR <a href="https://www.youtube.com/watch?annotation_id=2563e028-aff3-4a3f-bd3d-7bf8dcc45840&amp;feature=cards&amp;src_vid=IBP1TmBXlY&amp;v=ZejizwRUgqc">https://www.youtube.com/watch?annotation_id=2563e028-aff3-4a3f-bd3d-7bf8dcc45840&amp;feature=cards&amp;src_vid=IBP1TmBXlY&amp;v=ZejizwRUgqc</a>	Warm Up: Ratio of the Day AND "Ratios and Unit Rate" Videos: <a href="https://www.youtube.com/watch?v=RQ2nYUBVqI">https://www.youtube.com/watch?v=RQ2nYUBVqI</a> (Note- this is a repeat video from 2 weeks ago to teach UNIT RATES and Associating rates with ratios...)	Warm Up: Ratio of the Day AND "Engage NY Lesson 18" Videos: <a href="https://www.youtube.com/watch?v=aJ3Dr4pm_yPw">https://www.youtube.com/watch?v=aJ3Dr4pm_yPw</a> or <a href="https://www.youtube.com/watch?v=InQHvGr9Ybc">https://www.youtube.com/watch?v=InQHvGr9Ybc</a>	Warm Up: Ratio/Rate of the Day AND Video: <a href="https://www.youtube.com/watch?v=InQHvGr9Ybc">https://www.youtube.com/watch?v=InQHvGr9Ybc</a>	
<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 1-16 Exploratory Challenge	Direct Instruction: Engage NY Lesson 1-17 Exercises 1-6	Direct Instruction: Engage NY Lesson 18 Exercise 1	Direct Instruction: Engage NY Lesson 1-19 Exercises 1-3	Direct Instruction: Engage NY Lesson 20 Exercise 1 and Exploratory Challenge
<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: Lesson 16 Problem Set/Homework	Student Ratio/Rates Notes and Homework: Engage NY Lesson 17 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 18 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 19 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 20 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 Ticket and Teacher Observations	Exit Ticket and Teacher Observations	Exit Tickets and Teacher Observations	Exit Ticket 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 associate a description of a ratio relationship, such as "5 miles for every 2 hours" to a new quantity, "2.5miles/hour" called a <b>rate</b> . Students will be able to identify the unit rate and the rate unit.	Given a rate, students will find ratios associated with the rate, including a ratio where the second term is one and a ratio where both terms are whole numbers. Students recognize that all ratios associated to a given rate are equivalent because they have the same value.	Students make use of the structure of division and ratios to model as a quantity. Students interpret a rate as a division of two quantities, or better yet, as a fraction which is the first step toward converting measurement units using rates later on.	Students solve problems by analyzing different unit rates given in tables, equations, and graphs.	Students solve problems by analyzing different rates given in words, tables, equations, and graphs.

*Mrs. Rayman's 6th Grade Advanced Math  
Weekly Lesson Plans*

Date: Week of October 8, 2018

**Common Core State Standards**

<b>6.RP.1</b> Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	<b>6.RP.3</b> Use ratio and rate reasoning to solve real-world and mathematical problems, e.g. by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	<b>6.RP.3a</b> Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
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**Essential Question:** *How do you use ratio concepts and ratio reasoning to solve problems?*

**Monday Engage NY Lesson 1-25**

Objective: Students write a fraction and a decimal as a percent of a whole quantity and write a percent of a whole quantity as a fraction or decimal.

Agenda:

1. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=kmVfZ9o-2gg>
2. Classwork: Engage NY Lesson 25 Example 1 & 2 and Examples 1-6
3. Exit Ticket: *Show all necessary work to support your answer:* 1.) Convert 0.3 to a fraction and a percent 2.) Convert 9% to a fraction and a decimal 3.) Convert  $\frac{1}{4}$  to a decimal and percent.
4. Homework: Engage NY Lesson 25 Problem Set/Homework

**Monday Engage NY Lesson 1-26**

Objective: Students will find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.

Agenda:

5. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=rR95Cbcjzus>
6. Classwork: Engage NY Lesson 26 Example 1-3 and Exercises
7. Exit Ticket: 1.) Find 40% of 60 using two different things, one of which must include a pictorial model or diagram. 2.) 15% of an amount is 30. Calculate the whole amount using two different strategies, one of which must include a pictorial amount.
8. Homework: Engage NY Lesson 26 Problem Set/Homework

## **Tuesday Engage NY Lesson 1-27**

Objective: Students will find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.

1. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=rR95Cbcjzus> AND <https://www.youtube.com/watch?v=Hxh0tsCva8E>
2. Classwork: Engage NY Lesson 27 Example 1 and Exercises 1
3. Exit Ticket: *Jane paid \$40 for an item after she received a 20% discount. Jane's friend says this means that the original price of the item was \$48. A. How do you think Jane's friend arrived at this amount? B. Is her friend correct? Why or why not?*
4. Homework: Engage NY Lesson 27 Problem Set/Homework

## **Tuesday Engage NY Lesson 1-28**

Objective: Given a part and the percent, students find the percent of a quantity and solve problems involving finding the whole.

Agenda:

5. Warm up: Fraction/Percent of the Day AND Video: <https://www.youtube.com/watch?v=bYU3X8A0dRM>
6. Classwork: Engage NY Lesson 28 Example 1 and Exercise 1
7. Exit Ticket: *1. Write one problem using a dollar amount of \$420 and a percent of 40%. Provide the solution to your problem. 2. The sale price of an item is \$160 after a 20% discount. What was the original price of the item?*
8. Homework: Engage NY Lesson 28 Problem Set/Homework

## **Wednesday Engage NY Lesson 1-29**

Objective: Students find the percent of a quantity. Given a part and the percent, students solve problems involving the whole.

Agenda:

1. Warm up: Fraction/Percent of the Day Video:
2. Classwork: Engage NY Lesson 29 Exploratory Challenges 1 & 2
3. Exit Ticket: Angelina received two discounts on a \$50 pair of shoes. The discounts were taken off one after the other. If she paid \$30 for the shoes, what was the percent discount for each coupon? Is there only one answer to this question?
4. Homework: Engage NY Lesson 29 Problem Set/Homework

## **Thursday Unit 1 Final Assessment**

Objective: Students will apply all information learned about Ratios and Proportions while taking the Unit 1 Assessment. Students will utilize all test taking procedures and skills taught.

Agenda:

1. Warm up: Ratio/Rate of the Day
2. Unit 1 Final Assessment and MARS Unit 1 Performance Task
3. Exit Ticket: *Reflect on what you accomplished in math class today...*
4. Homework: Compass Learning

## **Friday: Half Day of School- Records Day (PM Schedule)**

20. Warm up: Ratio/Rate of the Day AND Video:
21. Classwork: Kahn Academy and/or Compass Learning
22. Homework: Kahn or Compass Learning

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

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Accessing Prior Knowledge -</b> Where 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 Video: <a href="https://www.youtube.com/watch?v=kmVfZ9o-2gg">https://www.youtube.com/watch?v=kmVfZ9o-2gg</a>	Warm Up: Fraction/Percent of the Day AND Video: <a href="https://www.youtube.com/watch?v=rR95Cbcjzus">https://www.youtube.com/watch?v=rR95Cbcjzus</a>	Warm Up: Fraction/Percent of the Day AND Video: <a href="https://www.youtube.com/watch?v=rR95Cbcjzus">https://www.youtube.com/watch?v=rR95Cbcjzus</a> AND <a href="https://www.youtube.com/watch?v=Hxh0tsCva8E">https://www.youtube.com/watch?v=Hxh0tsCva8E</a>	Warm Up: Fraction/Percent of the Day AND Video: <a href="https://www.youtube.com/watch?v=bYU3X8A0dRM">https://www.youtube.com/watch?v=bYU3X8A0dRM</a>	Warm Up: Ratio/Rate of the Day AND Video: <a href="https://www.youtube.com/watch?v=lnQHvGr9Ybc">https://www.youtube.com/watch?v=lnQHvGr9Ybc</a>
<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 25 Example 1 & 2 and Examples 1-6	Direct Instruction: Engage NY Lesson 26 Example 1-3 and Exercises	Direct Instruction: Engage NY Lesson 27 Example 1 and Exercises 1	Direct Instruction: Engage NY Lesson 28 Example 1 and Exercise 1	Direct Instruction: Engage NY Lesson 20 Exercise 1 and Exploratory Challenge
<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 25 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 26 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 27 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 28 Problem Set/Homework	Student Ratio Notes and Homework: Engage NY Lesson 20 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 write a fraction and a decimal as a percent of a whole quantity and write a percent of a whole quantity as a fraction or decimal.	Students will find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.	Students will find the percent of a quantity. Given a part and the percent, students solve problems involving finding the whole.	Given a part and the percent, students find the percent of a quantity and solve problems involving finding the whole.	Students solve problems by analyzing different rates given in words, tables, equations, and graphs.