

# Ratios and Proportions

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# State Standards

7<sup>th</sup> Grade

Missouri Learning Standards (MLS)

7.RP.A.1

7<sup>th</sup> Grade

Common Core State Standards

CCSS.MATH.CONTENT.7.RP.A.1

CCSS.MATH.CONTENT.7.RP.A.2



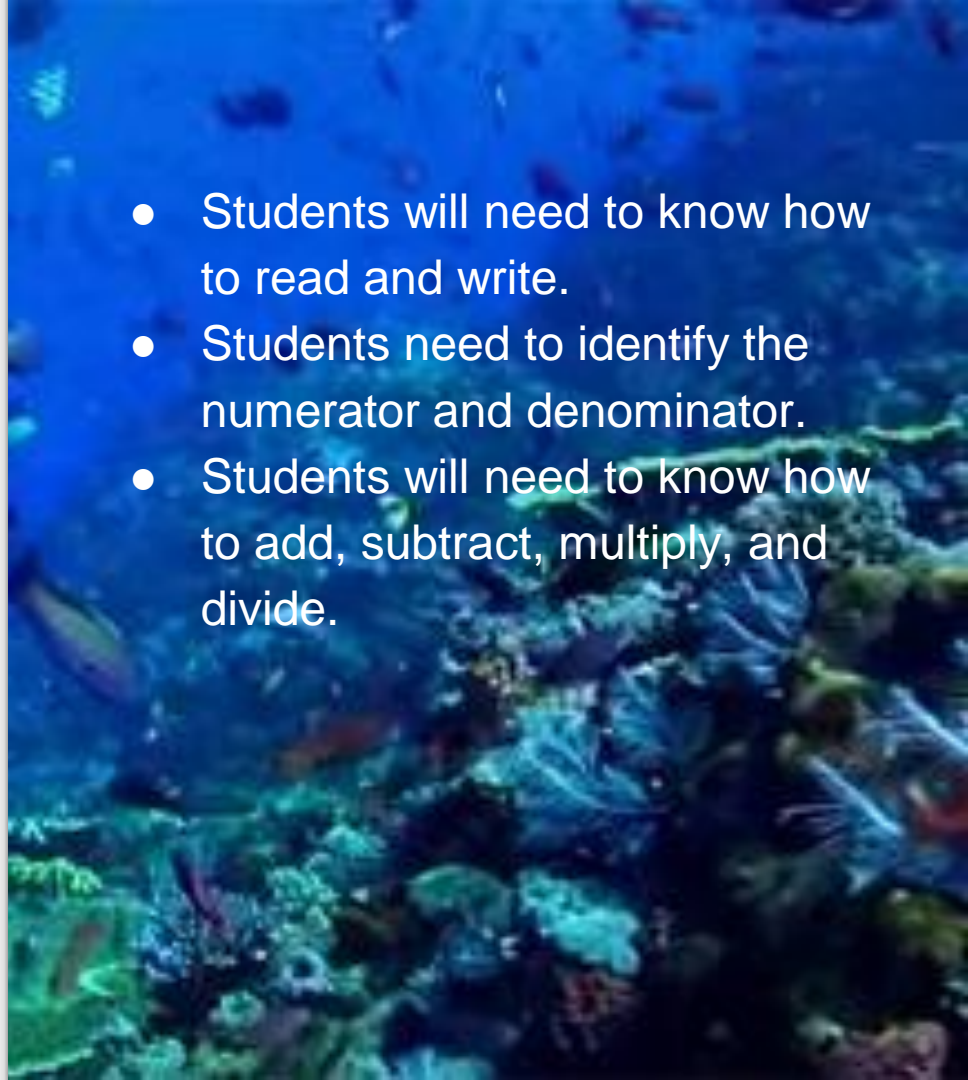
# Objective

**Analyze proportional relationships and use them to solve problems.**

**Compute unit rates, including those that involve complex fractions, with like or different units.**

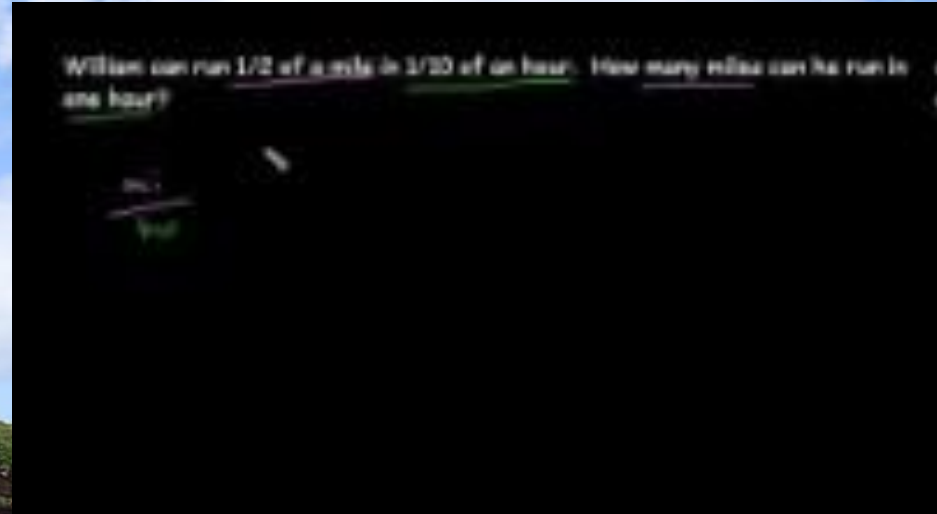
# Prior Knowledge Needed

- Students will need to know how to read and write.
- Students need to identify the numerator and denominator.
- Students will need to know how to add, subtract, multiply, and divide.



Let's look at an example of how to compute a problem with unit rates by simplifying complex fractions.

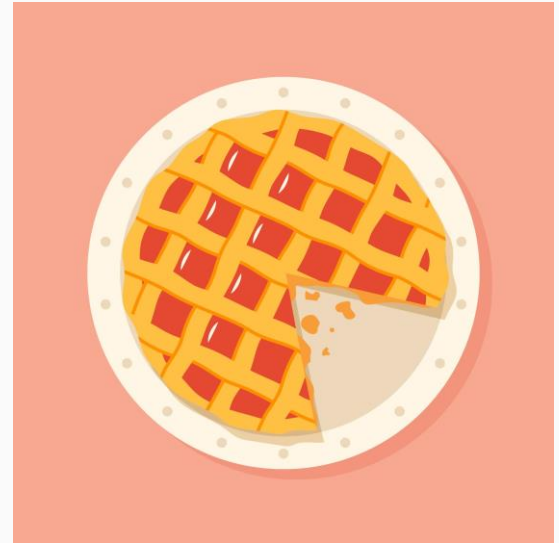
<https://www.youtube.com/watch?v=sdQzHPwrG4o>



# Let's try this as a class.

Grandma's famous pie recipe used  $\frac{2}{3}$  cup of sugar for every 2 teaspoons of milk. How much sugar was used per teaspoon of milk?

- A. 3
- B.  $1 \frac{1}{3}$
- C.  $2 \frac{2}{3}$
- D.  $\frac{1}{3}$



# Answer

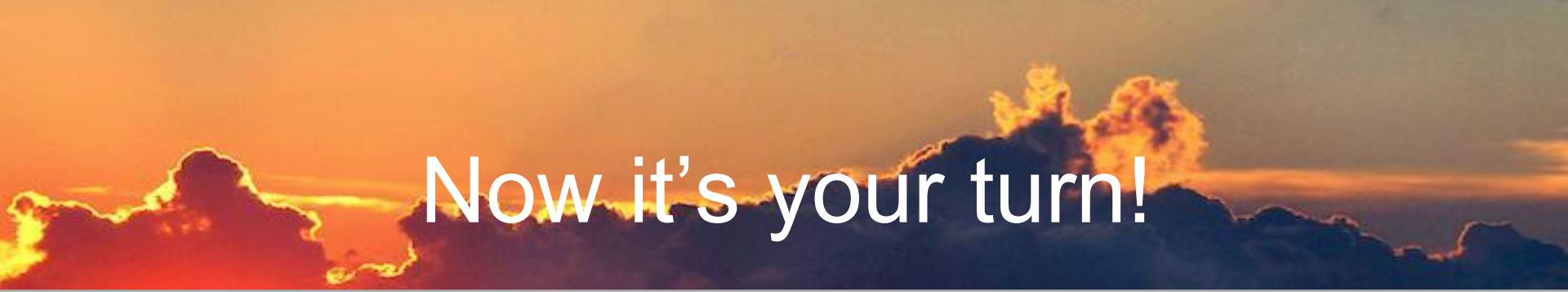
To solve, take  $2/3$  divided by 2 ( $2/3 / 2$ )

To find the answer of  $2/3 / 2$ , you can multiply the reciprocal:

$$2/3 \times 1/2 =$$

$$\frac{2 \times 1}{3 \times 2} = \frac{2}{6} = \frac{1}{3}$$

The answer is D.  $1/3$



Now it's your turn!

Complete the activity worksheet Unit Rate -  
Complex Fractions.