**Standard: MGSE6.RP.1**

**Goal:** Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.

A ratio is a ________________ of two quantities (number of units) that uses ________________.

What are the 3 ways ratios can be written? Write an example of each.

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

The three types of ratio relationships are ________________________, ________________________, and ________________________. ________________________ is the only type that describes the relationship between two quantities that represent a fraction.

**Example:** Answer the following questions.

John went to Publix to get some cookies for his friends. The variety pack of 12 he bought contained 5 chocolate chip, 4 oatmeal raisin, and 3 sugar cookies.

*Give the ratio of each in fractional form, with a colon, and in words. (Be sure to label each quantity with the unit of measure!)*

sugar cookies to chocolate chip cookies

oatmeal raisin cookies to chocolate chip cookies

chocolate chip cookies to total cookies

oatmeal raisin cookies and sugar cookies to total cookies
Ratios Notes page #______

Which ratios in the example are part-to-part ratios and which are part-to-whole ratios? List them.

Equivalent Ratios

Just like 1/3 and 2/6 are equivalent fractions, they are also equivalent ratios. When you change a ratio to an equal ratio with larger numbers, you are scaling up the ratio. Scaling up means you ______ the numerator and the denominator of a ratio by the ____________ _______________. Likewise, when you change a ratio to an equal ratio with smaller numbers, you are scaling down the ratio. Scaling down means you ______ the numerator and the denominator of a ratio by the ____________ _______________.

Example: Use the scaling up or scaling down method to find the equivalent ratio for each. Write the method used and complete the equivalent ratio.

You have 24 total packs in a variety pack of Fruit Snacks. If there are 6 cherry packs in a variety pack, how many cherry packs are there in 48 total packs?

\[
\begin{align*}
6 \text{ cherry packs} & = \frac{\text{?}}{24 \text{ total packs}} \quad \frac{72 \text{ total packs}}{
72 \text{ total packs}} \\
24 \text{ total packs} & = \frac{96 \text{ total packs}}{
96 \text{ total packs}} \\
8 \text{ orange packs} & = \frac{\text{?}}{24 \text{ total packs}} \quad \frac{96 \text{ total packs}}{
96 \text{ total packs}}
\end{align*}
\]
**Standard: MCC6.RP.3 - 3a**

**Goal:** To 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 and double number lines to compare ratios.

A _________________________________ shows how two quantities are related.

A _________________________________ is a model that is made up of two number lines used to represent the equivalence of two related numbers. Each _____________ on the number line has _____________ sets of numbers and maintains the same _____________.

**Example:** Use what you know about equivalent ratios to fill in the table.

Zaria is mixing red and yellow paint to make orange paint. The shade of paint she wants to make requires her to mix 2 pints red paint to 5 pints yellow paint. Complete the ratio table to determine the amount of paint Zaria needs to make 35 pints of orange paint.

<table>
<thead>
<tr>
<th>Amount of Orange Paint</th>
<th>7 pints</th>
<th></th>
<th>35 pints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Paint</td>
<td>2 pints</td>
<td>4</td>
<td>pints</td>
</tr>
<tr>
<td>Yellow Paint</td>
<td>5 pints</td>
<td></td>
<td>15 pints</td>
</tr>
</tbody>
</table>

How many pints of red and yellow paint are needed to make 49 pints of orange paint?

**Example:** Use the double number line to determine the amount of yellow paint Zaria needs if she has 20 pints of red paint. How much orange paint will it make? ________
MCC6.RP.2 & 3b

Goal: Understand, use the language of, and demonstrate the concept of a unit rate \( \frac{a}{b} \) and its relation to a ratio \( a:b \) when \( b \) is not equal to 0. Solve unit rate problems including those involving unit pricing and constant speed.

Rate and Unit Rate

A _______________ is a ratio in which the two quantities being compared are measured in different _______________. A _______________ ______________

is a comparison of two measurements in which the __________________________

has a value of __________________________. __________________________

can help you determine which of two or more items is the best buy.

Can you think of some examples where you see unit rates being used??? Write three!

1. 
2. 
3. 

Example: Give the unit rate of each using ratios.

6 pies cut into 48 slices $3.36 for 12 ounces of spaghetti sauce

Example: Complete the rate table. The rate table shows the number of gallons of water per minute an average shower uses.

<table>
<thead>
<tr>
<th># of minutes</th>
<th>1</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td># of gallons</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example: Answer the following using ratios.

A banquet hall is preparing for a wedding with 312 guests. If one table will seat 8 guests, how many tables will be needed for the wedding?

If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?

Erica needs to buy apples to bake pies for the fair. She needs 13 pounds of apples. At Publix, she finds apples selling for $1.89 a pound. At Kroger, she finds a 15-pound bag of apples for $26.99. Which store has the better deal? (Don’t forget to show your work!!)