**Quamichan Grade 8: Mathematics**

Week #2: April 15 - 21

**Learning Intentions:**

* Curricular learning intentions will vary depending on the course material delivered online by your Math Teacher.

**Assignment Instructions:**

**\*If your teacher is: Ms. Barton, Mr. Carlin, or Ms. Taylor:**

* Continue with the assigned work on Khan Academy.
  + Go to “Assignments” to see the lessons and activities that your teacher has assigned.

**\*\*Please note:** your teacher may need to add assignments for you ***after*** you have registered. If you don’t see any assignments when you first log in feel free to explore the site.

* Follow through the activities, being sure to watch the videos. Please try the activities in the order that they are presented to you (from top to bottom)
* When you have completed the lessons and sample questions, you can try the quiz! You may try the quiz more than once

**\*If your teacher is: Mrs. Hopwo, Ms. Lawler, or Mr. Robinson:**

* ***Read*** the notes located **below** on Part-to-Part and Part-to-Whole Ratios.
* ***Complete*** the assignment located below, titled “Ratios in My Life”.
* ***Send*** this assignment back to your Math Teacher, using any of the following methods:
  + Type or upload your assignment (or a picture of it) in your **Class Notebook on your Office 365 school account online**. Ask your teacher for support if you are not able to access your Class Notebook.
  + Do your assignment electronically (in Word, Pages, Powerpoint, etc.) and attach the file to an email to your Math teacher.
  + Nicely write the assignment on a piece of paper, take a **quality** picture, and email it to your Math teacher.

**Criteria:**

* Student will be assessed based on:
  + Achievement in the course material
  + Interaction with the course material

**Extending Your Learning (Optional):**

* When you have completed the material successfully, your teacher can assign more challenging questions
* You may also explore Khan Academy and find material to attempt that you are interested in

**For Students in Mrs. Hopwo, Ms. Lawler and Mr. Robinson’s classes ONLY:**  
**Ratio Notes:**  
**Part to Part and Part to Whole**

**Part to Part:** is a ratio that represents the relationship of one **part** of a whole to another **part** of the same whole.

* For example: 🍎🍎🍎🍎🍒🍒🍒🍇🍇🍇🍇🍇

In the example above you see apples, cherries and grapes.

What is the ratio of…..

* apples to cherries: 4 to 3
* Cherries to grapes: 3 to 5
* Apples to cherries and grapes: 4 to 8

These are all examples of a “Part to Part” ratio. We are comparing a **part** of this whole group to another **part** of the whole group.

**Part to Whole:** is a ratio or a fraction that represents a relationship between a **part** and the **whole group**

* Using the same fruit example: 🍎🍎🍎🍎🍒🍒🍒🍇🍇🍇🍇🍇

What is the ratio of…..

* Apples to all the fruit: 4 to 12
* Cherries to all the fruit: 3 to 12
* Apples, cherries and grapes to grapes: 12 to 5

These are examples of part of the whole compared to the whole group.

NOTE: You cannot link items that are not similar. So, I would not be able to state 3 dogs and 2 apples as a part to whole. Dogs and apples are not the same.

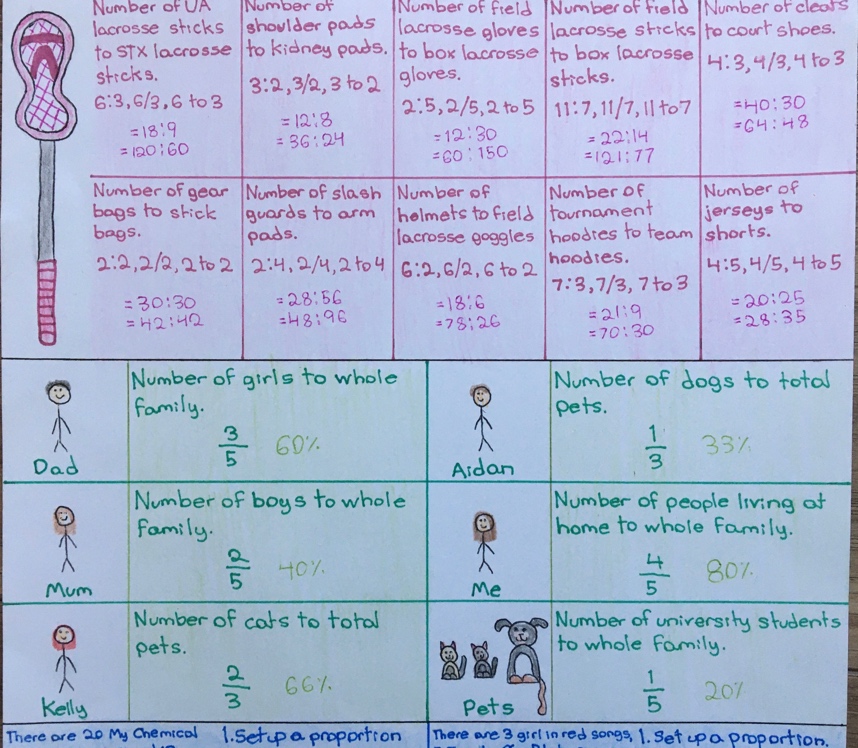
**Another example:** 🐵🐵🐵🐶🐶

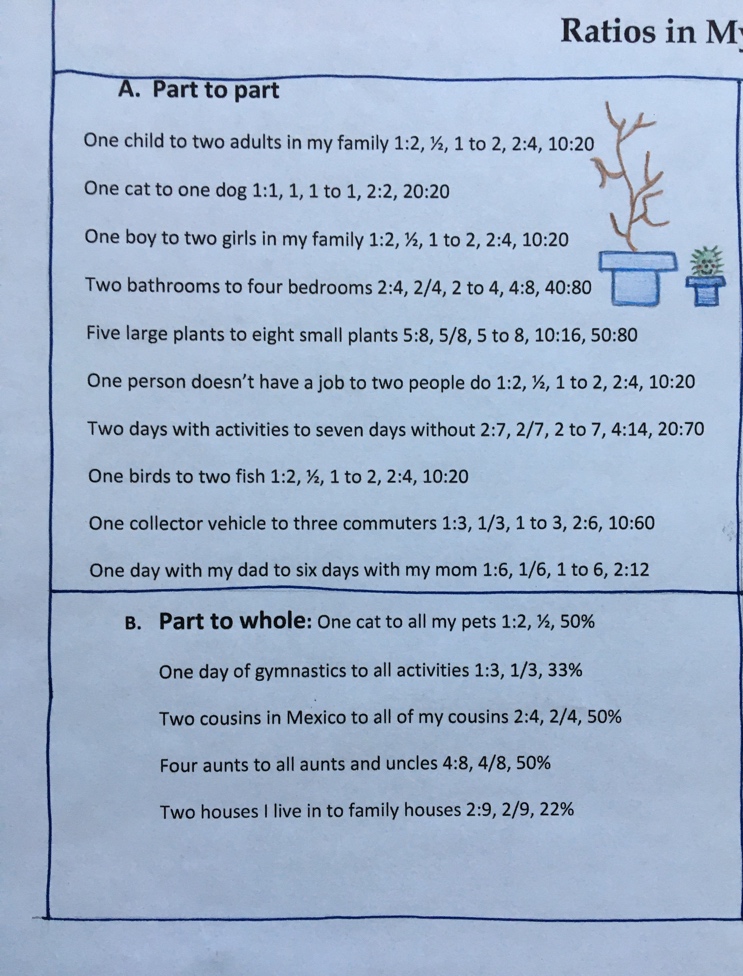
* There are 3 monkeys and 2 dogs. I could find the ratio of monkeys to dogs, which would be 3:2. This would be an example of part to part.
* Or I could find the ratio of monkeys to animals. This would be 3 to 5. Monkeys to animals would be a part to whole ratio.

**RATIOS IN MY LIFE:**

1. Pick a minimum of 10 Part-to-Part ratios that you have around in your life. For example: people in your house, pets, plants, cars, toys, electronics video games, pens, pencils, forks, spoons, etc.
   1. Explain each ratio in **words** (ex. Number of adults to kids in my family)
   2. Represent each ratio in **3 different ways** (ex. 2:3, 2/3, and 2 to 3)
   3. List **2 equivalent ratios** to your original ratio (ex. 2:3 = 4:6 and 20: 30)
2. Pick a minimum of 5 Part-to-Whole ratios that you have around in your life. For example, the number of blue LEGO bricks to all the LEGO bricks.
   1. Write each ratio as a **Part-to-Whole ratio**, explain each in **words** (ex. Blue LEGO bricks to all LEGO bricks)
3. Present this information in a style of your choosing. It could be a small poster, a booklet, a powerpoint or word document, a video, or...? Remember you will need to share your project with your teacher, in a way that we can view it!
4. Note: there is an **optional video** on part to whole ratios available through Khan Academy: https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/cc-6th-ratio-word-problems/v/ratios-as-fractions

Here are some examples to inspire you! Your work does not need to be in this format, but it is welcomed! 😊





**Extending Your Learning (Optional):**

* Include pictures or drawings of the items in your ratios.
* For your Part-to-Whole ratios, try turning your ratios intoa **Percent** (Ex: blue LEGO bricks to all LEGO bricks is 124/345, so 36% are blue LEGO bricks)
* Create a minimum of 3 ratio / proportion word problems (ex. Map scale, paint mixtures, ice tea mixed with water) **Write** these problems out and provide a **step by step solution** with an answer. (You could google some ratio/proportion word problems to try and get some ideas)