

Lesson 12 & 13 : From Ratio Tables to Double Number Line Diagrams

Classwork

Exercise 1

A school cafeteria has a restriction on the amount of sugary drinks available to students. Drinks may not have more than 25 g of sugar. Based on this restriction, what is the largest size cola (in ounces) the cafeteria can offer to students?

Exercise 2

Shontelle solves three math problems in four minutes.

- a. Use this information to complete the table below.

Number of Questions	3	6	9	12	15	18	21	24	27	30
Number of Minutes										

- b. Shontelle has soccer practice on Thursday evening. She has a half hour before practice to work on her math homework and to talk to her friends. She has 20 math skill-work questions for homework, and she wants to complete them before talking with her friends. How many minutes will Shontelle have left after completing her math homework to talk to her friends?

Use a double number line diagram to support your answer, and show all work.

Exercise 3

During a particular U.S. Air Force training exercise, the ratio of the number of men to the number of women was 6: 1. Use the ratio table provided below to create at least two equations that model the relationship between the number of men and the number of women participating in this training exercise.

Women (<i>W</i>)	Men (<i>M</i>)

Equations:



If 200 women participated in the training exercise, use one of your equations to calculate the number of men who participated.

Lesson Summary

The value of a ratio can be determined using a ratio table. This value can be used to write an equation that also represents the ratio.

Example:

1	4
2	8
3	12
4	16

The multiplication table can be a valuable resource to use in seeing ratios. Different rows can be used to find equivalent ratios.

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Problem Set

A cookie recipe calls for 1 cup of white sugar and 3 cups of brown sugar.

Make a table showing the comparison of the amount of white sugar to the amount of brown sugar.

White Sugar (<i>W</i>)	Brown Sugar (<i>B</i>)

1. Write the value of the ratio of the amount of white sugar to the amount of brown sugar.
2. Write an equation that shows the relationship of the amount of white sugar to the amount of brown sugar.
3. Explain how the value of the ratio can be seen in the table.
4. Explain how the value of the ratio can be seen in the equation.

5. While shopping, Kyla found a dress that she would like to purchase, but it costs \$52.25 more than she has. Kyla charges \$5.50 an hour for babysitting. She wants to figure out how many hours she must babysit to earn \$52.25 to buy the dress. Use a double number line to support your answer.