

## Lesson 12: From Ratio Tables to Double Number Line Diagrams

### Classwork

#### Exercise 2

The amount of sugary beverages Americans consume is a leading health concern. For a given brand of cola, a 12-ounce serving of cola contains about 40 grams of sugar. Complete the ratio table, using the given ratio to find equivalent ratios.

Cola (ounces)		12	
Sugar (grams)		40	

#### Exercise 3

A 1-liter bottle of cola contains approximately 34 fluid ounces. How many grams of sugar would be in a 1-liter bottle of the cola? Explain and show how to arrive at the solution.

#### Exercise 4

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

**Exercise 5**

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.

### Lesson Summary

**Double Number Line Diagram:** a tool used for understanding the equivalence of two related numbers. It is called *double* because each mark on the line has two numbers matched to it. The top row of numbers describes the whole represented by the line in one way, and the bottom row describes the whole represented by the line in another way. Because the whole line is the same, it is possible to see the equivalences between the rows of numbers at any point on the line.

### Problem Set

1. 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.
2. Frank has been driving at a constant speed for 3 hours, during which time he traveled 195 miles. Frank would like to know how long it will take him to complete the remaining 455 miles, assuming he maintains the same constant speed. Help Frank determine how long the remainder of the trip will take. Include a table or diagram to support your answer.