

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 oz. serving of cola contains about 40 g of sugar. Complete the ratio table, using the given ratio to find equivalent ratios.

Cola (ounces)	6	12	18
Sugar (grams)	20	40	60

$\frac{12}{40} = 2 = \frac{6}{20}$

Exercise 3

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

Extend table

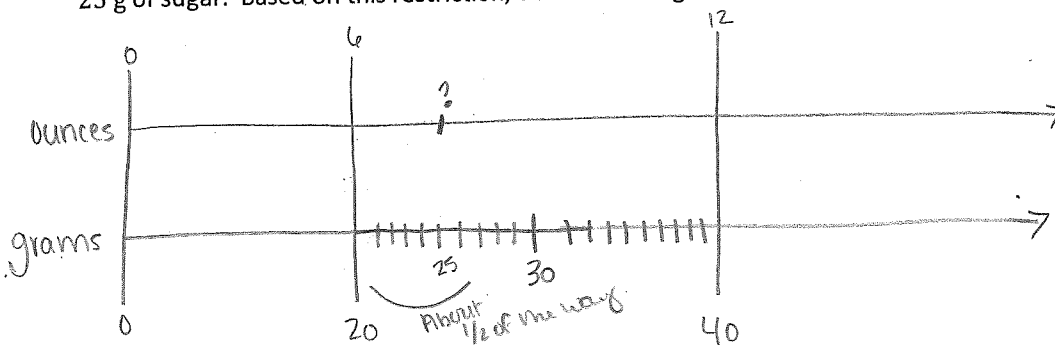
ounces	24	30	36
Sugar	80	100	120

Answer would be between 100-120g of sugar.

* Look at Double # line Reproducible sheet!

Exercise 4

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?



$$\frac{1}{4} \cdot \frac{6}{1} = \frac{6}{4} \text{ or } 1\frac{1}{2} + 6 = 7\frac{1}{2}$$

Exercise 5

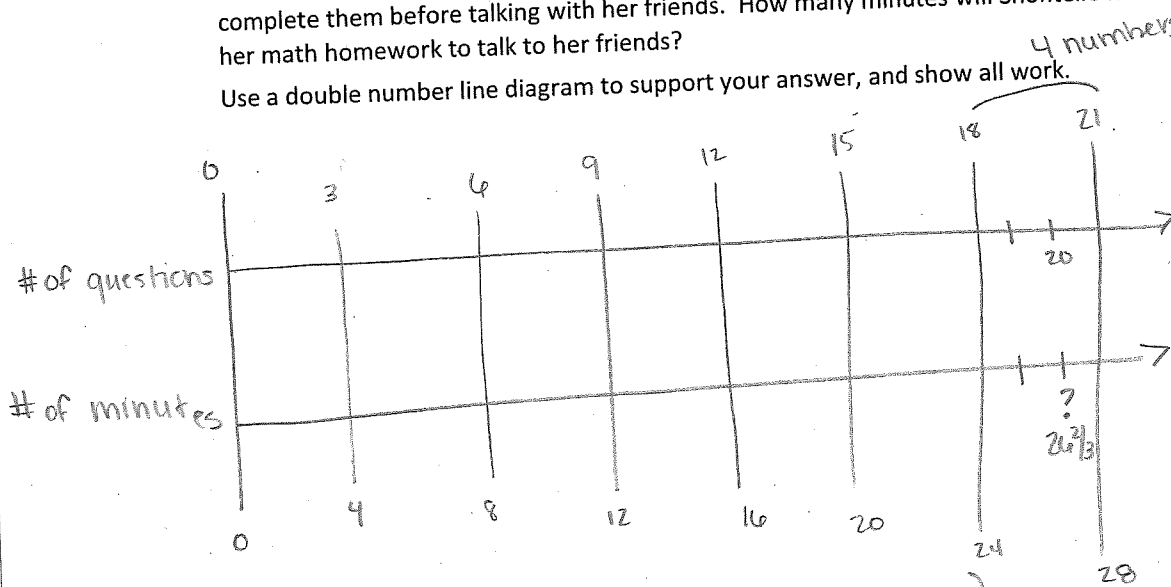
Shontelle solves three math problems in four minutes.

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	4	8	12	16	20	24	28	32	36	40

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.



Step #1 20 is $\frac{2}{3}$ of the way to 21

$$\frac{2}{3} \cdot \frac{4}{1} = \frac{8}{3} \text{ or } 2\frac{2}{3}$$

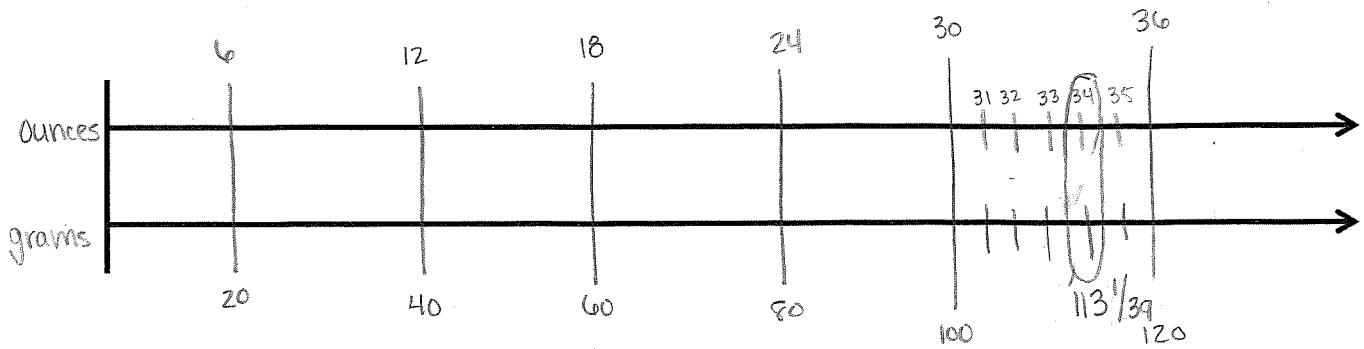
$$\begin{array}{r} 3\overline{)8} \\ -6 \\ \hline 2 \end{array}$$

Step #2 $24 + 2\frac{2}{3} = 26\frac{2}{3}$

Step #3. $30 \text{ min} - 26\frac{2}{3} \text{ min} = 3\frac{1}{3} \text{ min.}$

Shontelle can talk to her friends for $3\frac{1}{3}$ min.

Double Number Line Reproducible



1 for cola is 20 for sugar
 $\frac{4}{6}$ or $\frac{2}{3}$ of the way between 30-36.

$$\frac{2}{3} \cdot \frac{20}{1} = \frac{40}{3} \text{ or } 13\frac{1}{3}$$

Add to 100

