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Teacher's Resource Masters

GRADE 6 VOLUME 2

Topics 5–8

Home-School Connection Letters

Pick a Project

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Build Mathematical Literacy

Enrichment

Teaching Tools

enVision® Mathematics

Grade 6

Volume 2: Topics 5–8

Topic 5 Understand and Use Ratio and Rate

Topic 5 Home-School Connection (English and Spanish)

Topic 5 Pick a Project A–D

Topic 5 **enVision**® STEM Project

Reteach to Build Understanding 5-1 through 5-10

Additional Vocabulary Support 5-1 through 5-10

Build Mathematical Literacy 5-1 through 5-10

Enrichment..... 5-1 through 5-10

Topic 6 Understand and Use Percent

Topic 6 Home-School Connection (English and Spanish)

Topic 6 Pick a Project A–D

Topic 6 **enVision**® STEM Project

Reteach to Build Understanding 6-1 through 6-6

Additional Vocabulary Support 6-1 through 6-6

Build Mathematical Literacy 6-1 through 6-6

Enrichment.....6-1 through 6-6

Topic 7 Solve Area, Surface Area, and Volume Problems

Topic 7 Home-School Connection (English and Spanish)

Topic 7 Pick a Project A–D

Topic 7 **enVision**® STEM Project

Reteach to Build Understanding 7-1 through 7-8

Additional Vocabulary Support 7-1 through 7-8

Build Mathematical Literacy 7-1 through 7-8

Enrichment.....7-1 through 7-8

Topic 8 Display, Describe, and Summarize Data

Topic 8 Home-School Connection (English and Spanish)

Topic 8 Pick a Project A–D

Topic 8 **enVision**® STEM Project

Reteach to Build Understanding 8-1 through 8-7

Additional Vocabulary Support 8-1 through 8-7

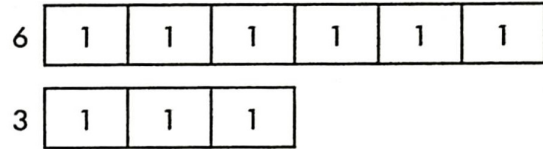
Build Mathematical Literacy 8-1 through 8-7

Enrichment.....8-1 through 8-7

Teaching Tools 1–28

A **ratio** is a comparison of two numbers or the number of items in two groups. Each quantity in a ratio is called a **term**. Ratios can be written with the word "to" separating the terms (a to b), with a colon separating the terms ($a:b$), or in fraction form ($\frac{a}{b}$).

The ratio 6:3 can be modeled using a **bar diagram** with a row of 6 equal boxes and a row of 3 equal boxes as shown on the right.



1. The chorus at an elementary school is made up of fifth and sixth graders. This year, the chorus has 12 fifth-grade girls, 9 fifth-grade boys, 14 sixth-grade girls, and 10 sixth-grade boys.

a. The ratio of girls to boys is _____ to _____.

b. The ratio of fifth graders to sixth graders is _____:_____.

c. The ratio of girls to the total number of students in the chorus is

.

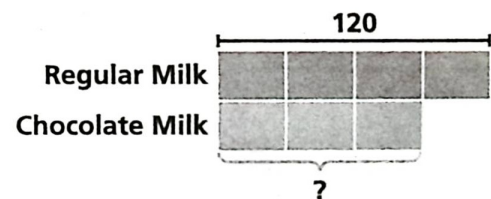
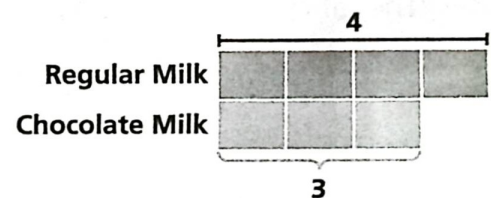
2. The school cafeteria orders 4 cartons of regular milk for every 3 cartons of chocolate milk.

a. Complete the bar diagram to show the ratio.

b. The school ordered 120 cartons of regular milk. Divide 120 cartons of regular milk by _____ because there are _____ boxes in the top row.

c. Write the value of each box in both rows of the bar diagram.

d. How many cartons of chocolate milk did the school order?



On the Back!

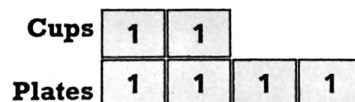
3. A photocopier can copy 4 pages every 2 seconds. How long will it take to copy 120 pages? Draw a diagram to solve the problem.

Name _____

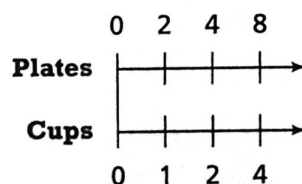
Use the vocabulary terms from the list to complete the sentences.
Each term may be used more than once.

terms	bar diagram	a part	ratio
quantities	double number line diagram	the whole	relationship

1. A _____ shows a
_____ between two quantities.
2. The two _____ compared in a ratio are
called _____.
3. At a pet show, there are 5 dogs and 3 cats. The ratio 5 : 3 compares
_____ to _____.
4. At a vegetable stand, there are 10 tomatoes and 7 cucumbers.
The ratio 7 : 17 compares _____ to
_____.
5. The ratio of cups to plates is $\frac{2}{4}$. The _____
below illustrates this ratio.



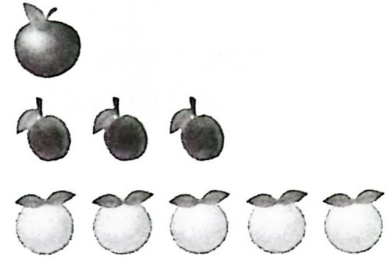
6. The ratio of plates to cups is 4 : 2. The _____
below illustrates this ratio.



Name _____

Read the problem below. Answer the SQRQCQ questions to help understand the problem.

Sam is packing gift boxes with fruit. For each apple, he packs 3 plums and 5 oranges. If he puts 3 apples in a box, how many plums and oranges will Sam put in the box? Draw a diagram to solve the problem.



Survey

1. What is the problem about?

Question

2. What question will be answered by solving the problem?

Reread

3. Underline the sentence that describes the ratio.

Question

4. Why might a bar diagram be better to use than a double number line diagram to solve the problem?

Construct

5. How many boxes will be drawn for apples? plums? oranges? Explain.

Question

6. How will the number written in each box of the bar diagram signal that the solution is correct?