Unit 10: Home Practice

Part 1 Multiplication and Division Practice

Choose a strategy to solve each problem. Use resources in the *Student Guide* Reference section.

1. **A.** $8967 \div 6 =$ **B.** $5875 \div 50 =$

    C. $246 \times 9 =$ **D.** $2400 \div 30 =$

    E. $105 \times 4 =$

2. Can you solve any of the above problems using mental math? If so, explain your strategies.

Part 2 Division Practice

Use a mental math strategy to solve each division problem. Write remainders using whole numbers.

A. $33 \div 4 =$ **B.** $76 \div 9 =$ **C.** $17 \div 2 =$

D. $108 \div 10 =$ **E.** $54 \div 7 =$ **F.** $41 \div 6 =$

G. $42 \div 8 =$ **H.** $23 \div 6 =$ **I.** $67 \div 8 =$

Part 3 Making Brownies

Below is a list of ingredients Manny uses to make one batch of brownies.

Walnut Crunch Brownies

4 squares chocolate
$\frac{3}{4}$ cup butter
$1\frac{1}{2}$ cups sugar
4 eggs
1 teaspoon vanilla
$\frac{2}{3}$ cup flour
$\frac{1}{4}$ cup walnuts

1. Manny only has 2 eggs at home. He plans to make half a recipe. List how much of each ingredient he needs.

2. Manny shares his original recipe with Felicia. She plans to double the recipe. How much of each ingredient does she need?

Part 4 Analyze the Class

There are of 24 students in a class.

1. .25 of the students are left-handed. How many students are left-handed?

2. $\frac{1}{3}$ of the class is wearing jeans. How many students are wearing jeans?

3. 18 students did extra credit math work. What fraction of the class did extra credit work?

4. Write the fraction in Question 3 as a decimal.

5. 12 students are girls. What fraction of the students are boys?

Part 5 The End of the School Year

Choose an appropriate method to solve each of the following problems. For some questions you may need to find an exact answer, while for others you may need only an estimate. For each question, you may choose to use paper and pencil, mental math, or a calculator. Use a separate sheet of paper to explain how you solved each problem.

1. On the last day of school, Mr. Moreno collected his students' books. If each of his 22 students returns all of his or her books, Mr. Moreno should have 132 textbooks. How many text books did each student use during the year?

2. If a student loses a school library book, he or she must pay for the book. If the book is returned late, the student must pay a fine of 5¢ a day for every day it was late. Manny should have returned a book by March 25. It is June 2. If the book costs $3.95, is it cheaper for Manny to buy the book or return it and pay the overdue fine? Share your strategies.

3. Six students stayed after school to help Mr. Moreno pack up the classroom. He treated them to juice and popcorn. If Mr. Moreno bought 6 cans of juice from the machine in the teacher's lounge, it would have cost him 50¢ per can. Instead, on the way to school he bought six cans of juice for $2.69. About how much did Mr. Moreno save per can?

4. On the way home, Blanca and Edward stopped at the park to play basketball. They both tried to shoot free throws. They both averaged 2 successful free throws out of 5 tries.

   A. If Blanca tried 20 times, how many free throws did she make?

   B. Edward made 12 free throws. How many times did he try?

5. Mr. Moreno decorated one bulletin board for next fall. Then he covered the board with butcher paper, so his decorations wouldn't fade. The bulletin board is 2.4 meters long and 1.3 meters wide. What is the area of the bulletin board in square meters?

Part 6 Food for Thought

Solve the following problems. You may use any of the tools you have used in class such as calculators, drawings, circle pieces or resources from the *Student Guide* Reference section. Show your solutions.

1. **A.** If three friends split $1\frac{1}{2}$ pizzas evenly, how much of a whole pizza will each person eat?

    B. If six friends split $1\frac{1}{2}$ pizzas, how much of a whole pizza will each person eat?

2. Michael's father made a pumpkin pie. Michael and his brother couldn't wait until after dinner to eat the pie. Michael ate $\frac{1}{8}$ of the pie. His brother ate $\frac{1}{4}$ of the pie. What fraction of the whole pie was left for dessert after dinner?

3. Ana is making nut bread for a bake sale. The recipe for one loaf of bread calls for $\frac{3}{4}$ cup of nuts. If she wants to make 5 loaves of bread, how many cups of nuts does she need?

4. David is making orange punch. He combines $5\frac{1}{4}$ cups of orange juice with $2\frac{2}{3}$ cups of sparkling water. Can he pour all the punch into a 2-quart pitcher? Why or why not? (1 quart = 4 cups)

Teacher Guide

Part 1. Multiplication and Division Practice (TG p. 1)
Questions 1–2

I. **A.** $1494\frac{1}{2}$ **B.** $117\frac{1}{2}$

    C. 2214   **D.** 80

    E. 420

2. Answers will vary: Possible response for
   1E: $105 \times 4 = 100 \times 4 + 5 \times 4 = 400 + 20 = 420$

Part 2. Division Practice (TG p. 1)
Questions A–I

A. 8 R1   **B.** 8 R4

C. 8 R1   **D.** 10 R8

E. 7 R5   **F.** 6 R5

G. 5 R2   **H.** 3 R5

    I. 8 R3

Part 3. Making Brownies (TG p. 2)
Questions 1–2

I. 2 squares chocolate, $\frac{3}{8}$ cup butter, $\frac{3}{4}$ cup sugar, 2 eggs, $\frac{1}{2}$ teaspoon vanilla, $\frac{1}{3}$ cup flour, and $\frac{1}{8}$ cup walnuts

2. 8 squares chocolate, $1\frac{1}{2}$ cups butter, 3 cups sugar, 8 eggs, 2 teaspoons vanilla, $1\frac{1}{3}$ cups flour, and $\frac{1}{2}$ cup walnuts

Part 4. Analyze the Class (TG p. 2)
Questions 1–5

I. 6   2. 8

3. $\frac{3}{4}$ 4. .75

5. $\frac{1}{2}$

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Name _____ Date _____

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Teacher Guide - Page 3

Part 5. The End of the School Year (TG p. 3)
Questions 1–5

1. 6 text books

2. Pay the fines. The book is 69 days overdue. $69 \times .05 = \$3.45$. The book is \$3.95, so Manny will save \$ .50.

3. about a nickel per can

4. **A.** 8

   B. 30

5. 3.12 square meters

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Part 6. Food for Thought (TG p. 4)
Questions 1–4

1. **A.** $\frac{1}{2}$ pizza

   B. $\frac{1}{4}$ pizza

2. $\frac{5}{8}$ of the pie

3. $3\frac{3}{4}$ cups

4. Yes; the punch is $5\frac{1}{4} + 2\frac{2}{3} = 7\frac{11}{12}$ cups. Since 2 quarts is 8 cups and the punch is only $7\frac{11}{12}$ cups, David can pour all the punch into a 2-quart pitcher.