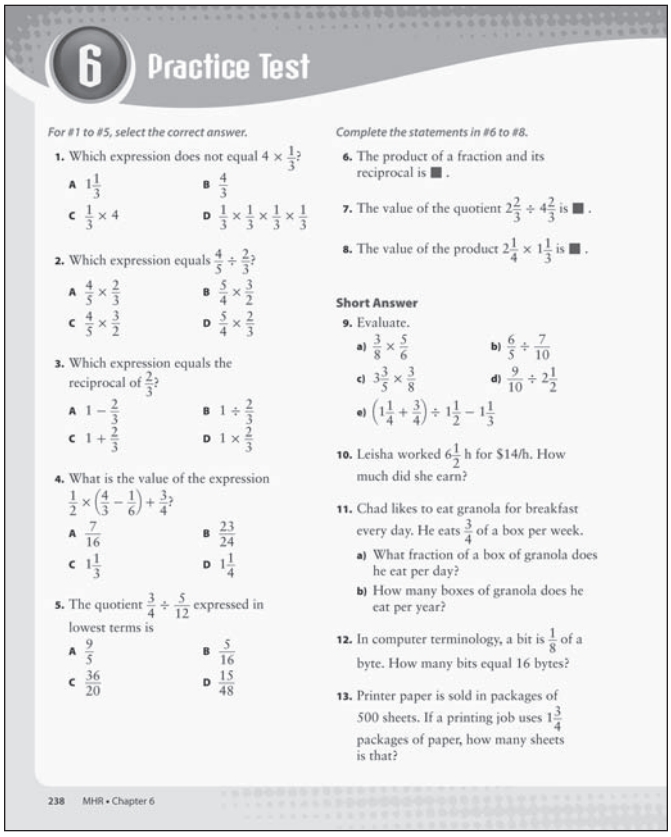

6 Practice Test

For #1 to #5, select the correct answer.

1. Which expression does not equal $4 \times \frac{1}{3}$?

A $1\frac{1}{3}$ B $\frac{4}{3}$

C $\frac{1}{3} \times 4$ D $\frac{1}{3} \times \frac{1}{3} \times \frac{1}{3} \times \frac{1}{3}$

2. Which expression equals $\frac{4}{5} \div \frac{2}{3}$?

A $\frac{4}{5} \times \frac{2}{3}$ B $\frac{5}{4} \times \frac{3}{2}$

C $\frac{4}{5} \times \frac{3}{2}$ D $\frac{5}{4} \times \frac{2}{3}$

3. Which expression equals the reciprocal of $\frac{2}{3}$?

A $1 - \frac{2}{3}$ B $1 \div \frac{2}{3}$

C $1 + \frac{2}{3}$ D $1 \times \frac{2}{3}$

4. What is the value of the expression $\frac{1}{2} \times \left(\frac{4}{3} - \frac{1}{6}\right) + \frac{3}{4}$?

A $\frac{7}{16}$ B $\frac{23}{24}$

C $1\frac{1}{3}$ D $1\frac{1}{4}$

5. The quotient $\frac{3}{4} \div \frac{5}{12}$ expressed in lowest terms is

A $\frac{9}{5}$ B $\frac{5}{16}$

C $\frac{36}{20}$ D $\frac{15}{48}$

Complete the statements in #6 to #8.

6. The product of a fraction and its reciprocal is ■.

7. The value of the quotient $2\frac{2}{3} \div 4\frac{2}{3}$ is ■.

8. The value of the product $2\frac{1}{4} \times 1\frac{1}{3}$ is ■.

Short Answer

9. Evaluate.

a) $\frac{3}{8} \times \frac{5}{6}$ b) $\frac{6}{5} \div \frac{7}{10}$

c) $3\frac{3}{5} \times \frac{3}{8}$ d) $\frac{9}{10} \div 2\frac{1}{2}$

e) $\left(1\frac{1}{4} + \frac{3}{4}\right) \div 1\frac{1}{2} - 1\frac{1}{3}$

10. Leisha worked $6\frac{1}{2}$ h for $14/h. How much did she earn?

11. Chad likes to eat granola for breakfast every day. He eats $\frac{3}{4}$ of a box per week.

a) What fraction of a box of granola does he eat per day?

b) How many boxes of granola does he eat per year?

12. In computer terminology, a bit is $\frac{1}{8}$ of a byte. How many bits equal 16 bytes?

13. Printer paper is sold in packages of 500 sheets. If a printing job uses $1\frac{3}{4}$ packages of paper, how many sheets is that?

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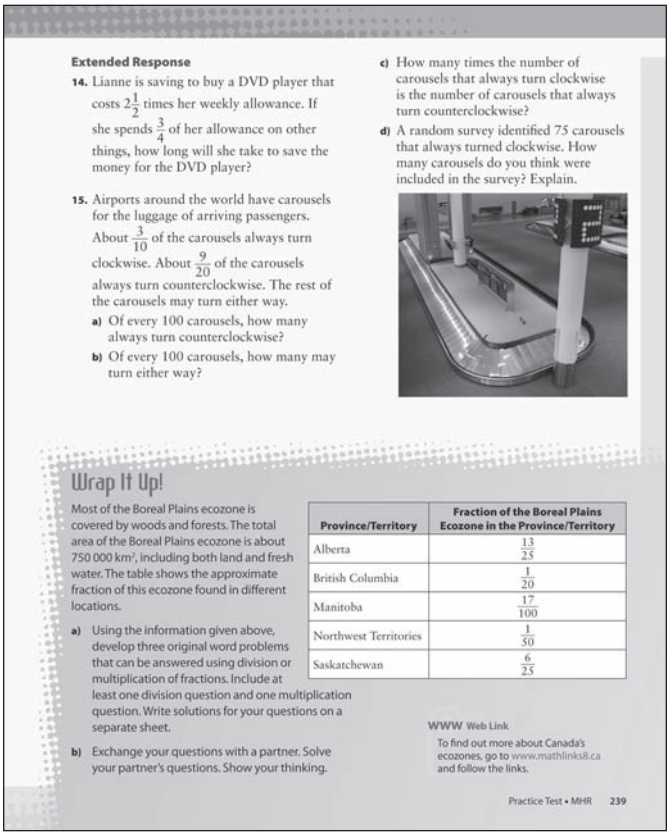

Extended Response

14. Lianne is saving to buy a DVD player that costs $2\frac{1}{2}$ times her weekly allowance. If she spends $\frac{3}{4}$ of her allowance on other things, how long will she take to save the money for the DVD player?

15. Airports around the world have carousels for the luggage of arriving passengers. About $\frac{3}{10}$ of the carousels always turn clockwise. About $\frac{9}{20}$ of the carousels always turn counterclockwise. The rest of the carousels may turn either way.

a) Of every 100 carousels, how many always turn counterclockwise?

b) Of every 100 carousels, how many may turn either way?

c) How many times the number of carousels that always turn clockwise is the number of carousels that always turn counterclockwise?

d) A random survey identified 75 carousels that always turned clockwise. How many carousels do you think were included in the survey? Explain.

Wrap It Up!

Most of the Boreal Plains ecozone is covered by woods and forests. The total area of the Boreal Plains ecozone is about 750 000 km², including both land and fresh water. The table shows the approximate fraction of this ecozone found in different locations.

Province/Territory	Fraction of the Boreal Plains Ecozone in the Province/Territory
Alberta	$\frac{13}{25}$
British Columbia	$\frac{1}{20}$
Manitoba	$\frac{17}{100}$
Northwest Territories	$\frac{1}{50}$
Saskatchewan	$\frac{6}{25}$

a) Using the information given above, develop three original word problems that can be answered using division or multiplication of fractions. Include at least one division question and one multiplication question. Write solutions for your questions on a separate sheet.

b) Exchange your questions with a partner. Solve your partner's questions. Show your thinking.

WWW Web Link

To find out more about Canada's ecozones, go to www.mathlinks8.ca and follow the links.

Practice Test • MHR 239

***MathLinks 8*, pages 238–239**

Suggested Timing

40–50 minutes

Blackline Masters

BLM 6–21 Chapter 6 Test

Planning Notes

Allow time for students to clarify any misunderstandings before beginning the practice test. Have students start the practice test by writing the question numbers in their notebooks. Have them indicate questions with which they need a little help, a lot of help, or no help. Have students first complete the questions they know they can do, followed by those they know something about. Finally, have students do their best on the questions that they are struggling with.

This practice test can be assigned as an in-class or take-home assignment. Provide students with the number of questions they can comfortably do in one class. These are the minimum questions that will meet the related curriculum outcomes: #1, #7, #8, #10–#13, and #15.

Study Guide

Question(s)	Section(s)	Refer to	The student can …
1	6.1	Example 3	✓ multiply a fraction and a whole number
2, 3	6.2	Examples 1, 2 Example 3	✓ divide a fraction by a whole number ✓ solve problems involving the division of fractions by whole numbers
4, 9	6.6	Example 1	✓ apply the order of operations to solve problems involving fractions
5, 6, 7, 9	6.5	Example 2	✓ divide two fractions or mixed numbers
8, 9	6.4	Example 2	✓ multiply two improper fractions or mixed numbers
9	6.3	Example 3	✓ multiply two proper fractions
10, 11	6.1	Example 3	✓ solve problems involving the multiplication of a fraction and a whole number
12	6.6	Example 2	✓ decide when to multiply fractions and when to divide fractions in solving problems
13, 14	6.4	Examples 2	✓ solve problems involving the multiplication of improper fractions or mixed numbers
15	6.6	Examples 1, 2	✓ decide when to multiply fractions and when to divide fractions in solving problems ✓ apply the order of operations to solve problems involving fractions

Answers

Chapter 6 Practice Test

1. D **2.** C **3.** B **4.** C **5.** A

6. 1

7. $\frac{4}{7}$

8. 3

9. a) $\frac{5}{16}$ **b)** $1\frac{5}{7}$ **c)** $1\frac{7}{20}$ **d)** $\frac{9}{25}$ **e)** 0

10. $91

11. a) $\frac{3}{28}$ **b)** 39

12. 128

13. 875

14. 10 weeks

15. a) 45 **b)** 25 **c)** $1\frac{1}{2}$ **d)** 250; $\frac{3}{10} \times 250 = 75$

Assessment	Supporting Learning
Assessment *as* Learning	
Chapter 6 Self-Assessment Have students review their earlier responses in the What I Need to Work On sections of their chapter Foldable.	• Before completing the Chapter 6 Practice Test, ask students to complete the What I **Learned** column from the KWL chart they started at the beginning of the chapter. Discuss how students might now answer their questions in the What I **Want** to Know column and which ones still need to be answered. • Have students use their responses on the practice test and work they completed earlier in the chapter to identify areas in which they may need to reinforce their understanding of skills or concepts. Before the chapter test, coach them in the areas in which they are having difficulties.
Assessment *of* Learning	
Chapter 6 Test After students complete the practice test, you may wish to use **BLM 6–21 Chapter 6 Test** as a summative assessment.	• Consider allowing students to use their chapter Foldable. • Consider using the Math Games on page 240 or the Challenge in Real Life on page 241 to assess the knowledge and skills of students who have difficulty with tests.