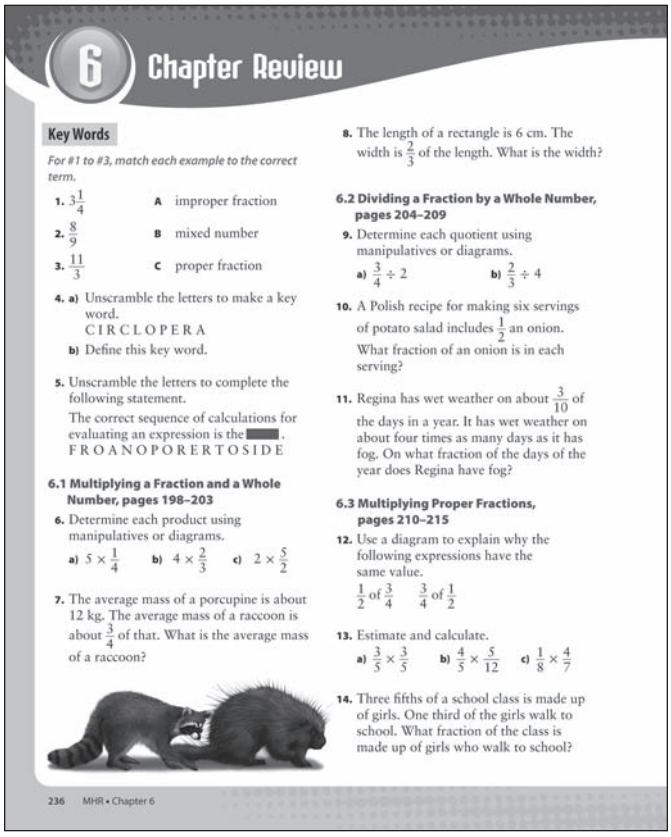
Chapter Review 6



6 Chapter Review

Key Words

For #1 to #3, match each example to the correct term.

1. $3\frac{1}{4}$
2. $\frac{8}{9}$
3. $\frac{11}{3}$

A improper fraction
B mixed number
C proper fraction

4. a) Unscramble the letters to make a key word.
CIRCLOPERA
b) Define this key word.

5. Unscramble the letters to complete the following statement.
The correct sequence of calculations for evaluating an expression is the ■.
FROANOPORERTOSIDE

6.1 Multiplying a Fraction and a Whole Number, pages 198–203

6. Determine each product using manipulatives or diagrams.
a) $5 \times \frac{1}{4}$ b) $4 \times \frac{2}{3}$ c) $2 \times \frac{5}{2}$

7. The average mass of a porcupine is about 12 kg. The average mass of a raccoon is about $\frac{3}{4}$ of that. What is the average mass of a raccoon?

8. The length of a rectangle is 6 cm. The width is $\frac{2}{3}$ of the length. What is the width?

6.2 Dividing a Fraction by a Whole Number, pages 204–209

9. Determine each quotient using manipulatives or diagrams.
a) $\frac{3}{4} \div 2$ b) $\frac{2}{3} \div 4$

10. A Polish recipe for making six servings of potato salad includes $\frac{1}{2}$ an onion. What fraction of an onion is in each serving?

11. Regina has wet weather on about $\frac{3}{10}$ of the days in a year. It has wet weather on about four times as many days as it has fog. On what fraction of the days of the year does Regina have fog?

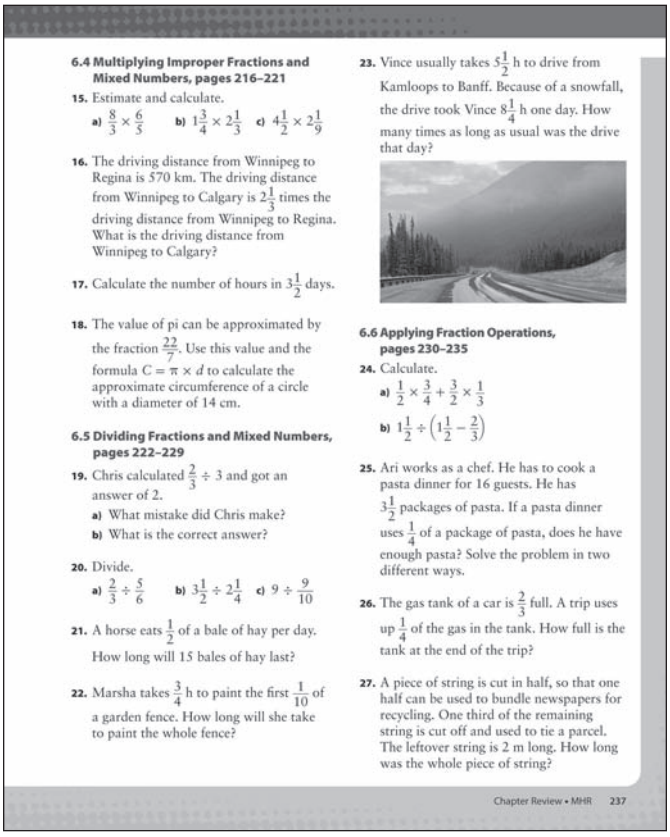
6.3 Multiplying Proper Fractions, pages 210–215

12. Use a diagram to explain why the following expressions have the same value.
$\frac{1}{2}$ of $\frac{3}{4}$ $\frac{3}{4}$ of $\frac{1}{2}$

13. Estimate and calculate.
a) $\frac{3}{5} \times \frac{3}{5}$ b) $\frac{4}{5} \times \frac{5}{12}$ c) $\frac{1}{8} \times \frac{4}{7}$

14. Three fifths of a school class is made up of girls. One third of the girls walk to school. What fraction of the class is made up of girls who walk to school?

236 MHR • Chapter 6



6.4 Multiplying Improper Fractions and Mixed Numbers, pages 216–221

15. Estimate and calculate.
a) $\frac{8}{3} \times \frac{6}{5}$ b) $1\frac{3}{4} \times 2\frac{1}{3}$ c) $4\frac{1}{2} \times 2\frac{1}{9}$

16. The driving distance from Winnipeg to Regina is 570 km. The driving distance from Winnipeg to Calgary is $2\frac{1}{3}$ times the driving distance from Winnipeg to Regina. What is the driving distance from Winnipeg to Calgary?

17. Calculate the number of hours in $3\frac{1}{2}$ days.

18. The value of pi can be approximated by the fraction $\frac{22}{7}$. Use this value and the formula $C = \pi \times d$ to calculate the approximate circumference of a circle with a diameter of 14 cm.

6.5 Dividing Fractions and Mixed Numbers, pages 222–229

19. Chris calculated $\frac{2}{3} \div 3$ and got an answer of 2.
a) What mistake did Chris make?
b) What is the correct answer?

20. Divide.
a) $\frac{2}{3} \div \frac{5}{6}$ b) $3\frac{1}{2} \div 2\frac{1}{4}$ c) $9 \div \frac{9}{10}$

21. A horse eats $\frac{1}{2}$ of a bale of hay per day. How long will 15 bales of hay last?

22. Marsha takes $\frac{3}{4}$ h to paint the first $\frac{1}{10}$ of a garden fence. How long will she take to paint the whole fence?

23. Vince usually takes $5\frac{1}{2}$ h to drive from Kamloops to Banff. Because of a snowfall, the drive took Vince $8\frac{1}{4}$ h one day. How many times as long as usual was the drive that day?

6.6 Applying Fraction Operations, pages 230–235

24. Calculate.
a) $\frac{1}{2} \times \frac{3}{4} + \frac{3}{2} \times \frac{1}{3}$
b) $1\frac{1}{2} \div \left(1\frac{1}{2} - \frac{2}{3}\right)$

25. Ari works as a chef. He has to cook a pasta dinner for 16 guests. He has $3\frac{1}{2}$ packages of pasta. If a pasta dinner uses $\frac{1}{4}$ of a package of pasta, does he have enough pasta? Solve the problem in two different ways.

26. The gas tank of a car is $\frac{2}{3}$ full. A trip uses up $\frac{1}{4}$ of the gas in the tank. How full is the tank at the end of the trip?

27. A piece of string is cut in half, so that one half can be used to bundle newspapers for recycling. One third of the remaining string is cut off and used to tie a parcel. The leftover string is 2 m long. How long was the whole piece of string?

Chapter Review • MHR 237

***MathLinks 8*, pages 236–237**

Suggested Timing
40–50 minutes

Materials
- pattern blocks (optional)

Blackline Masters
BLM 6–6 Section 6.1 Extra Practice
BLM 6–10 Section 6.2 Extra Practice
BLM 6–12 Section 6.3 Extra Practice
BLM 6–14 Section 6.4 Extra Practice
BLM 6–17 Section 6.5 Extra Practice
BLM 6–19 Section 6.6 Extra Practice

Planning Notes

Have students work independently to complete the review questions. Encourage students to refer to the information in their chapter Foldable and then to the specific section in the student resource and/or their notebooks. When students encounter difficulties, they could discuss strategies with other students and include successful strategies in appropriate sections of the chapter Foldable. Encourage students to consider alternative methods for solving problems and to ask about questions they found difficult.

You may wish to have students record the numbers from 6 to 27 in two columns in their notebook. As they read each question, have students indicate the questions they need a little help with, a lot of help with, or no help with. Students can use this information to identify sections they particularly need to revisit before the practice test.

Students may need manipulatives, such as pattern blocks, to complete #6 and #9.

Meeting Student Needs

- Students who require more practice on a particular topic may refer to **BLM 6–6 Section 6.1 Extra Practice**, **BLM 6–10 Section 6.2 Extra Practice**, **BLM 6–12 Section 6.3 Extra Practice**, **BLM 6–14 Section 6.4 Extra Practice**, **BLM 6–17 Section 6.5 Extra Practice**, and **BLM 6–19 Section 6.6 Extra Practice**.
- Allow students to complete the chapter review using a combination of oral descriptions, diagrams, and written answers.
- Encourage students to use their chapter Foldable and to add new notes if they wish.

ELL

- You may choose to have some students complete fewer word problems, as they may find deciphering the language too challenge and time comsuming.

Gifted and Enrichment

- Some students may already be familiar with the skills handled in this review. To provide enrichment and extra challenge for gifted students, go to www.mathlinks8.ca and follow the links.

Assessment	Supporting Learning
Assessment *for* Learning	
Chapter 6 Review The Chapter 6 Review is an opportunity for students to assess themselves by completing selected questions in each section and checking their answers against the answers in the back of the student resource.	• Have students check the contents of the What I Need to Work On sections of their chapter Foldable and do at least one question related to each item. • Have students revisit any section that they are having difficulty with prior to working on the chapter test.