

6.2 Dividing Fractions
by Whole Numbers

Pg 208 Q# 4-7, 9-12, 14

4. a)

Communicate the Ideas

- Lana decided to model the division $\frac{2}{3} \div 3$ using a fraction strip divided into sixths. Could you use this fraction strip to solve the problem? Explain.
- If you use four hexagons to represent one whole, show how you can model $\frac{3}{4} \div 6$ using pattern blocks.
 - Can you model $\frac{3}{4} \div 6$ by using two hexagons to represent one whole? Explain.
- Model the division $\frac{1}{2} \div 2$ using manipulatives or diagrams.
 - Which method did you choose? Explain why you chose it.

Check Your Understanding

Practise

For help with #4 and #5, refer to Examples 1 and 2 on pages 205–206.

- Determine each quotient using manipulatives or diagrams.
 - $\frac{1}{4} \div 2$
 - $\frac{1}{3} \div 3$
 - $\frac{1}{5} \div 2$
 - $\frac{5}{6} \div 4$
- Determine each quotient.
 - $\frac{3}{5} \div 2$
 - $\frac{1}{5} \div 3$
 - $\frac{1}{2} \div 4$
 - $\frac{2}{3} \div 6$

Apply

For help with #6 to #8, refer to Example 3 on pages 206–207.

- Two different South Indian fish curries, called dhopa and molee curry, both include coconut.
 - Dhopa requires $\frac{1}{2}$ a coconut to make two servings. What fraction of a coconut is in each serving?
 - Molee curry requires $\frac{1}{2}$ a coconut to make four servings. What fraction of a coconut is in each serving?
- A pitcher of orange juice is $\frac{2}{3}$ full. If four students equally share the juice, what fraction of the full pitcher does each student get?

8. The areas of Alberta, Saskatchewan, and Manitoba are approximately equal. The sum of their areas is about $\frac{1}{5}$ of the area of Canada. Express the area of each of these provinces as a fraction of the area of Canada.

9. Ingrid runs three laps of a track in $\frac{1}{4}$ h.
On average, how much time does she take to run one lap? Express your answer
- as a fraction of an hour,
 - in minutes



10. Mark uses $\frac{1}{3}$ of a tank of gasoline in a five-day work week driving to work and back. On average, what fraction of a tank does he use for each round trip?

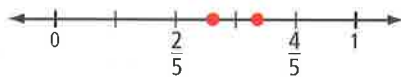
11. Iqaluit has frost on about $\frac{3}{4}$ of the days in a year. It has frost on five times as many days as Vancouver. On what fraction of the days of the year does Vancouver have frost?

12. It takes $\frac{4}{5}$ of a roll of ribbon to wrap six packages. What fraction of a roll does it take to wrap three packages?

13. Create your own word problem that involves the division of a proper fraction by a whole number. Make sure that you can solve your problem. Give your problem to a classmate to solve.

Extend

14. Two fractions are equally spaced between $\frac{2}{5}$ and $\frac{4}{5}$. Determine the two fractions.



15. a) Model the division $\frac{2}{3} \div 4 = \frac{1}{6}$ using manipulatives or diagrams.
b) Explain how your method shows that $\frac{2}{3} \div \frac{1}{6} = 4$.

MATH LINK

The Montane Cordillera and Boreal Cordillera ecozones have approximately equal areas. The total area of these two ecozones equals about $\frac{1}{10}$ of the area of Canada. What fraction of the area of Canada does each of these ecozones cover?

