6.3

## **Multiplying Proper Fractions**

MathLinks 8, pages 210-215

## **Key Ideas Review**

Choose from the following terms to complete #1 to #3.

estimate

multiply

numerators

paper folding

- 1. Two proper fractions can be multiplied using \_\_\_\_\_\_ or diagrams.
- 2. A rule for multiplying two proper fractions is to multiply the

and the denominators.

3. You can \_\_\_\_\_\_ the product of two proper fractions by first deciding whether each fraction is closer to 0,  $\frac{1}{2}$ , or 1.

## **Practise and Apply**

- **4.** Estimate and calculate each product. Show your thinking and express your answer in lowest terms.
  - a)  $\frac{2}{3} \times \frac{5}{6}$

Circle the closest estimate:  $0 \frac{1}{2} 1$ 

**d)**  $\frac{2}{3} \times \frac{3}{5}$ 

Circle the closest estimate:  $0 \frac{1}{2} 1$ 

**b)**  $\frac{4}{9} \times \frac{1}{5}$ 

Circle the closest estimate:  $0 \frac{1}{2} 1$ 

e)  $\frac{7}{8} \times \frac{3}{5}$ 

Circle the closest estimate:  $0 \frac{1}{2} 1$ 

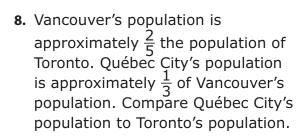
c)  $\frac{2}{5} \times \frac{3}{8}$ 

Circle the closest estimate:  $0 \frac{1}{2} 1$ 

f)  $\frac{9}{10} \times \frac{8}{9}$ 

Circle the closest estimate:  $0 \frac{1}{2} 1$ 

5. Tamara lives  $\frac{3}{4}$  km from school. She runs  $\frac{1}{3}$  of the distance and then walks the rest of the way to her house. How far does Tamara run? Show your thinking.



**6.** In a grade 8 class,  $\frac{1}{2}$  of the students play piano. Of these students,  $\frac{1}{4}$ also play guitar. What fraction of this class play both piano and guitar?



9. Hayden's hard drive is  $\frac{2}{5}$  filled. The operating system takes up  $\frac{1}{10}$  of that space. How much of the whole hard drive is filled by the operating system? Use a model to show your thinking.

7. On a Saturday, Sid helped his father do yard work for  $\frac{5}{6}$  of the afternoon. He mowed lawn for  $\frac{3}{5}$  of this time. What fraction of the afternoon did Sid spend mowing the lawn? Estimate, then solve.

Estimate:

**10.** An order of bruschetta for 4 uses  $\frac{1}{3}$ of a loaf of French bread. How much of a loaf does each person get when they share the order equally?

Solution: