


# 6.5 Dividing Fractions and Mixed Numbers

MathLinks 8, pages 222–229

## Key Ideas Review


Match each method in column A with the example in column B that best matches it.


A	B
1. Use diagrams to estimate the quotient of two fractions. _____	a) $3\frac{3}{4} \div 1\frac{1}{2} = \frac{15}{4} \div \frac{3}{2}$ $= \frac{15}{4} \div \frac{6}{4}$ $= \frac{15}{6}$ or $2\frac{1}{2}$
2. Estimate the quotient of two improper fractions or mixed numbers by dividing the whole numbers closest to them. _____	b) 
3. Divide two fractions by writing them with a common denominator, and dividing the numerators. _____	c) $5\frac{1}{5} \div 1\frac{2}{3} \approx 5 \div 2$ $\approx \frac{5}{2}$ or $2\frac{1}{2}$
4. Divide a fraction by multiplying by its reciprocal. _____	d) $\frac{3}{5} \div \frac{6}{7} = \frac{3}{5} \times \frac{7}{6}$ $= \frac{21}{30} = \frac{7}{10}$


## Practise and Apply

5. Complete the diagrams to determine each quotient.

a)  $\frac{5}{6} \div \frac{1}{3}$  

b)  $1\frac{1}{2} \div \frac{3}{4}$  

c)  $\frac{1}{3} \div \frac{1}{2}$  

d)  $1\frac{3}{4} \div \frac{2}{3}$  

6. Divide using a common denominator. Show your thinking.

a)  $\frac{2}{3} \div \frac{5}{6}$

b)  $1\frac{7}{8} \div \frac{3}{4}$

c)  $3\frac{3}{10} \div 2\frac{2}{5}$

d)  $1\frac{2}{3} \div 2\frac{5}{9}$

7. Divide using multiplication.

a)  $\frac{5}{8} \div \frac{2}{3}$

b)  $7 \div 4\frac{2}{3}$

c)  $1\frac{5}{6} \div \frac{7}{12}$

d)  $6\frac{2}{3} \div 2\frac{1}{2}$

Name: \_\_\_\_\_

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8. Estimate, then divide using a common denominator. Show your thinking.

a)  $1\frac{7}{8} \div 1\frac{1}{4}$  Estimate: \_\_\_\_\_  
Calculate:

b)  $5\frac{7}{10} \div 3\frac{9}{10}$  Estimate: \_\_\_\_\_  
Calculate:

c)  $2\frac{1}{6} \div 1\frac{5}{12}$  Estimate: \_\_\_\_\_  
Calculate:

9. Estimate, then divide using multiplication. Show your thinking.

a)  $6\frac{5}{6} \div 3\frac{1}{2}$  Estimate: \_\_\_\_\_  
Calculate:

b)  $8\frac{1}{3} \div 2\frac{3}{4}$  Estimate: \_\_\_\_\_  
Calculate:

c)  $7\frac{1}{8} \div 4$  Estimate: \_\_\_\_\_  
Calculate:

10. Carlos got  $\frac{5}{6}$  of the test questions correct. This was 15 questions. How many questions were on the test? Show your thinking.

11. Alisha needed  $\frac{3}{4}$  L of gasoline to mow the lawn. There was  $3\frac{3}{4}$  L of gasoline in the container. How many times can she mow the lawn before refilling the container? Show your thinking.



12. Jean-Pierre walked  $4\frac{1}{2}$  km in  $1\frac{1}{4}$  h. If he walked at a steady pace, how fast did he walk in kilometres per hour? Show your thinking.

13. A running track used in competition is  $\frac{2}{5}$  km. How many laps is the 1500 m race? Show two ways to solve the problem.

