

Grade 7 Mathematics

Week of Nov 16 – Nov 20

Lesson 2.2: Multiply Fractions

Lesson 2.3 Divide Fractions

Lesson Materials

- Lessons for Section [2.2 Multiply Fractions](#)
- Lessons for Section [2.3 Divide Fractions](#)
- Fractions Learning Guide (This PDF)

Use the link above to open the lessons for this section. Remember: on the lesson page, use the arrow next to the “Table of Contents” at the **top of the page** to move through the lessons. You can also click on the Table of Contents to open the menu so you can jump to a specific lesson page.


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Home

WCLN.ca Introduction to Numbers

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Numbers are all around us. They serve very different purposes depending on how they are used. A number is a mathematical object used to count, measure or label.

Count	Measure	Label
—	centimeter decimeter	

Work through the online lessons. You can work at your own pace or follow the suggested schedule below. Complete the activities in your Learning Guide as you work through the lessons. You can print the Learning Guide, or, copy out the questions on a separate piece of paper. Be sure to try the games and practice quizzes as you make your way through the online lesson book.

Suggested Lesson Schedule

<p>Monday</p> <ul style="list-style-type: none">• Fraction x Fraction• Reasonable Answers?• Examples• LG 2.2 #1-4 p. 8-9 <p>Tuesday</p> <ul style="list-style-type: none">• Fraction x Whole Number• Multiplying Game• Example• Game• LG #5-6, p. 9 <p>Wednesday</p> <ul style="list-style-type: none">• Cancellation of Fractions• Practice #2• Challenge Yourself• LG #8, p. 10	<p>Thursday</p> <ul style="list-style-type: none">• 2.3: Reciprocals• Dividing Fractions by Fractions• Divide a Fraction by Another Fraction• Examples• LG 2.3 #1-4, p. 11-12 <p>Friday</p> <ul style="list-style-type: none">• Practice• Game• LG #5-9, p. 12-13
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2.2 MULTIPLYING FRACTIONS

1. Fill in the blanks.

- a. When you multiply a whole number by a whole number, the answer is always _____ than the original number. Ex. $4 \times 5 = 20$
- b. When you multiply a proper fraction by a proper fraction, the answer is always _____ than the original number. Ex. $\frac{1}{4} \times \frac{1}{5} = \frac{1}{20}$

2. Multiply the following fractions. *Reminder: You need to multiply the numerators together and the denominators together.*

Ex. $\frac{4}{5} \times \frac{2}{3} = \frac{4 \times 2}{5 \times 3} = \frac{8}{15}$

c. $\frac{3}{8} \times \frac{3}{10}$

a. $\frac{1}{4} \times \frac{5}{6}$

d. $\frac{1}{6} \times \frac{1}{3}$

b. $\frac{2}{5} \times \frac{2}{7}$

e. $\frac{7}{8} \times \frac{3}{4}$

3. Multiply the following fractions, then convert the answer to a mixed number.

Ex. $\frac{5}{3} \times \frac{2}{3} = \frac{5 \times 2}{3 \times 3} = \frac{10}{9} = 1 \frac{1}{9}$

c. $\frac{10}{3} \times \frac{6}{5}$

a. $\frac{9}{2} \times \frac{1}{4}$

d. $\frac{8}{9} \times \frac{11}{3}$

b. $\frac{3}{5} \times \frac{7}{2}$

e. $\frac{15}{2} \times \frac{3}{2}$

4. Simply the following fractions, then multiply.

Ex. $\frac{2}{6} \times \frac{1}{3} = \frac{\overset{1}{\cancel{2}}}{\underset{3}{\cancel{6}}} \times \frac{1}{3} = \frac{1}{9}$

b. $\frac{5}{6} \times \frac{3}{9}$

a. $\frac{2}{4} \times \frac{3}{4}$

c. $\frac{2}{3} \times \frac{4}{10}$

5. Multiply. Express your answer as a mixed number.

a. $3 \times \frac{3}{4}$

e. $\frac{4}{5} \times 6$

b. $5 \times \frac{4}{7}$

f. $25 \times \frac{2}{11}$

c. $4 \times \frac{1}{2}$

g. $8 \times \frac{5}{3}$

d. $\frac{1}{2} \times 3$

h. $\frac{3}{2} \times 7$

6. Cross-simplify the following fractions, then multiply. Reminder: Always state the answer in its simplest terms.

a. $\frac{5}{6} \times \frac{2}{3}$

d. $\frac{3}{50} \times \frac{100}{9}$

b. $\frac{10}{33} \times \frac{11}{15}$

e. $\frac{16}{9} \times \frac{3}{40}$

c. $\frac{4}{7} \times \frac{1}{2}$

f. $\frac{4}{27} \times \frac{9}{2}$

7. Multiply. Express your answers as a mixed number when possible. *Reminder: Simplify as needed before and after multiplication.*

a. $\frac{15}{2} \times \frac{5}{3}$

c. $6 \times \frac{7}{3}$

b. $\frac{30}{20} \times \frac{4}{12}$

d. $\frac{12}{5} \times \frac{4}{3}$

8. Solve the following word problems. *Reminder: Show all of your work.*

- a. Georgia spent $\frac{3}{4}$ of an hour practicing her trombone. She spent $\frac{1}{2}$ of that time playing scales. How much time did she spend on scales?
- b. After making some bannock, Thomas gave $\frac{2}{3}$ of it to Maria. Maria gave $\frac{1}{4}$ of her bannock to Randall. How much of the original batch of bannock did Randall get?
- c. An elder spent 4 hours tracking a moose. It was raining during $\frac{1}{3}$ of that time. How long was it raining?
- d. Raj had 15 litres of juice in his fridge for the pancake breakfast. $\frac{2}{5}$ of the juice was apple juice. How many litres of apple juice was there in the fridge?

2.3 DIVIDING FRACTIONS

1. Find the reciprocal of each number.

Ex. $\frac{2}{5}$ $\frac{5}{2}$

c. $\frac{8}{3}$

f. $\frac{5}{12}$

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

d. $\frac{1}{4}$

g. 37

b. 6

e. 4

h. $\frac{11}{2}$

2. Find the reciprocal of each mixed number. *Reminder: You need to convert the mixed number to an improper fraction first.*

Ex. $7\frac{5}{6}$ $\frac{47}{6} \rightarrow \frac{6}{47}$

c. $9\frac{3}{5}$

a. $2\frac{1}{3}$

d. $6\frac{7}{10}$

b. $10\frac{1}{4}$

e. $5\frac{2}{3}$

3. Find the reciprocal of each fraction. State your answer as a mixed number.

Ex. $\frac{6}{55}$ $\frac{55}{6} \rightarrow 9\frac{1}{6}$

b. $\frac{8}{17}$

a. $\frac{2}{3}$

c. $\frac{5}{49}$

4. Match the division question to its restated (equivalent) multiplication question.

_____ $\frac{1}{4} \div \frac{2}{3}$	a. $\frac{5}{6} \times \frac{1}{8}$
_____ $\frac{1}{4} \div \frac{5}{3}$	b. $\frac{5}{6} \times 4$
_____ $\frac{5}{6} \div 8$	c. $\frac{1}{4} \times \frac{3}{2}$
_____ $\frac{1}{4} \div 2$	d. 6×4
_____ $\frac{5}{6} \div \frac{1}{4}$	e. $\frac{1}{4} \times \frac{3}{5}$
_____ $6 \div \frac{1}{4}$	f. $\frac{1}{4} \times \frac{1}{2}$

5. Solve. **Reminder:** Change each division into a multiplication before solving. You should still use the rules of simplifying fractions before multiplying them.

Ex. $16 \div \frac{2}{3} = \frac{8 \cdot 16}{1} \times \frac{3}{2} = \frac{24}{1} = 24$

b. $3 \div \frac{1}{4}$

a. $24 \div \frac{3}{8}$

c. $14 \div \frac{4}{5}$

6. Solve.

a. $\frac{2}{7} \div 3$

c. $\frac{5}{8} \div 10$

b. $\frac{1}{2} \div 8$

d. $\frac{1}{3} \div 5$

7. Solve. **Reminder:** After changing the division into a multiplication, simplify and cross-simplify the fractions before solving.

a. $\frac{3}{4} \div \frac{1}{8}$

c. $\frac{1}{9} \div \frac{13}{6}$

b. $\frac{4}{5} \div \frac{24}{35}$

d. $\frac{7}{2} \div \frac{14}{3}$

8. Solve. **Reminder:** **After** changing the division into a multiplication, simplify and cross-simplify the fractions before solving.

a. $\frac{8}{3} \div 6$

d. $\frac{4}{36} \div \frac{5}{12}$

b. $\frac{3}{9} \div \frac{7}{8}$

e. $9 \div \frac{1}{8}$

c. $18 \div \frac{3}{10}$

f. $\frac{15}{22} \div \frac{25}{42}$

9. Solve the following word problems. **Hint:** First write out each problem as a division, then change it to a multiplication to solve it.

a. Avery made 6 litres of fruit punch for his birthday party. If each cup holds $\frac{2}{7}$ of a litre of liquid, how many cups can Avery fill?

b. A jar has $\frac{3}{16}$ of a kilogram of small beads in it. Ember wants to make bead bracelets for 6 of her friends. The beads are too small to divide up by counting them. What is the weight of the beads that she can use for each bracelet, to make sure that she doesn't run out in the end?

c. Jackson wants to sell some slime at the craft fair. He has $\frac{5}{2}$ cups of slime. He needs $\frac{1}{4}$ cup of slime to fill a small container. How many containers can he fill?