



Alberta Math Education Curriculum Component: NUMBER Unit Chapter 9: Multiplication and Division of Decimals

General Outcome:

→ Develop number sense.

Students will able to:

- estimate products and quotients that involve decimals and whole numbers
- multiply and divide decimals by one-digit numbers using a variety of strategies
- solve problems that involve multiplying and dividing decimals
- solve problems by working backwards

Alberta Math Education Specific Concept (learning outcome): 8.

Classroom assessment is generally divided into three types: assessment *for* learning (Diagnostic Assessment: D), assessment *of* learning (Summative Assessment: S), assessment *as* learning (F).

→ For lesson **extra practice**, please visit:

<http://www.nelson.com/mathfocus/grade6/student/tryout.html>

Lesson Outline:

Lesson	Textbook Lesson Title	Learning Goals	Task **	Done
1	9.1- Estimating Products	Activate knowledge about multiplication and division of whole numbers. Estimate products of decimal numbers using whole numbers.	Scaffolding for Getting Started (D) <input type="checkbox"/> HW: Workbook (pg. 70) (F)	
2	9.2- Multiplying Money Amounts by One-Digit Numbers	Multiply decimal hundredths by one-digit numbers using different strategies.	<input type="checkbox"/> HW: Workbook (pg. 71) (F) <input checked="" type="checkbox"/> On line: Extra Practice	
3	9.3- Multiplying Decimals by One-Digit Numbers	Multiply decimal tenths, hundredths, and thousandths by one-digit numbers.	<input type="checkbox"/> HW: Workbook (pg. 72) (F) <input checked="" type="checkbox"/> On line: Extra Practice	
4	Mid-Chapter Review	Preparation for the quiz: Quiz Date: __/__/__ (mm/dd/yyyy)	<input type="checkbox"/> Textbook: Pg. 305 # 1-7 (DOSO on letter) (F)	
5	9.4- Estimating Quotients	Estimate quotients when dividing decimal numbers by one-digit divisors.	<input type="checkbox"/> HW: Workbook (pg. 73) (F) <input checked="" type="checkbox"/> On line: Extra Practice	
6	9.6- Dividing Decimals by One-Digit Numbers	Divide a decimal by a one-digit number using models and symbols.	<input type="checkbox"/> HW: Workbook (pg. 75) (F) <input checked="" type="checkbox"/> On line: Extra Practice	
7	9.7 - Solving Problems by Working Backwards	Work backwards to solve problems that involve decimals.	<input type="checkbox"/> HW: Workbook (pg. 76) (F) <input checked="" type="checkbox"/> On line: Extra Practice	
8	Chapter Review	Preparation for the test: Test Date: __/__/__ (mm/dd/yyyy)	<input type="checkbox"/> Textbook: (F) → Pg. 319-320 (Q1 to Q15: DOSO on letter) → Workbook (pg. 77) <input type="checkbox"/> Handout: (S) → Chapter 9: Journal Questions → Chapter 9: Self-Assessment: Lesson Goals → Review of Essential Skills: Chapter 9	

Here are some of the *Key Word(s)* that are being used in this chapter:

*perimeter

**** If the class work is not completed during class time, must be done for homework.**

I have read and went over this "Number -Unit 1 Plan (Chapter 7)" with my child. JazakAllahu khayran

Parent/Guardian name (print)

Parent/Guardian signature

---/--/---- (dd/mm/yyyy)



Address: 14525 127 ST, Edmonton, AB T6V 0B3 Phone: (780) 454-4573

RE: Chapter 9: Multiplication and Division of Decimals Information Letter

As-salaamu Alaikum Wa Rahmatu Allahi Wa Barakaatuhu, ("Peace be unto you and so may the mercy of Allah and His blessings"),

Dear Respected Parents and Guardians of Grade 6:

Over the next three weeks, your child will learn how to multiply and divide decimals by one-digit whole numbers. Your child will also estimate products and quotients involving decimals. Many models will be used to build understanding before the introduction of formal procedures. Students will have many opportunities to apply knowledge of multiplication and division of decimals in solving problems relevant to their lives.

To reinforce the concepts your child is learning at school, you and your child can work on some at-home activities such as these:

- Involve your child in buying groceries. Your child can calculate or estimate the total cost of any items purchased in multiples, or the cost for one item when prices are advertised in multiples, such as 5 for \$2.50.
- Involve your child in any home renovation or construction projects that might be taking place. Your child can calculate the cost of materials given the number of square metres and the cost per square metre, or the cost of labour.
- Involve your child in planning any family trips that might be taking place. Your child can calculate the average distance travelled per hour on different parts of the journey.

You may want to visit the Nelson website at

<http://www.mathk8.nelson.com/math6/studentcentre/studtryout.html>

for more suggestions to help your child learn mathematics and develop a positive attitude toward learning mathematics. As well, you can check the Nelson website for links to other websites that provide online tutorials, math problems, brainteasers, and challenges.

Sincerely,

Mustafizur Rahman, **ATA, OPC, OCT**
Ed.D (candidate), **MEd, BEd, BSc**
Grade 6 Math

Name: _____ Date: _____

Scaffolding for Getting Started

STUDENT BOOK PAGES 290–291

Annie's school is raising money for new playground equipment by selling granola bars.

Annie's class has sold 425 granola bars so far. Ramal's class has raised \$1422. Together, the two classes want to raise a total of \$3000.



? How many more granola bars do the two classes need to sell to raise a total of \$3000?

A. Annie's class has sold 425 granola bars for \$3 each. How do you know that Annie's class raised more than \$1200?

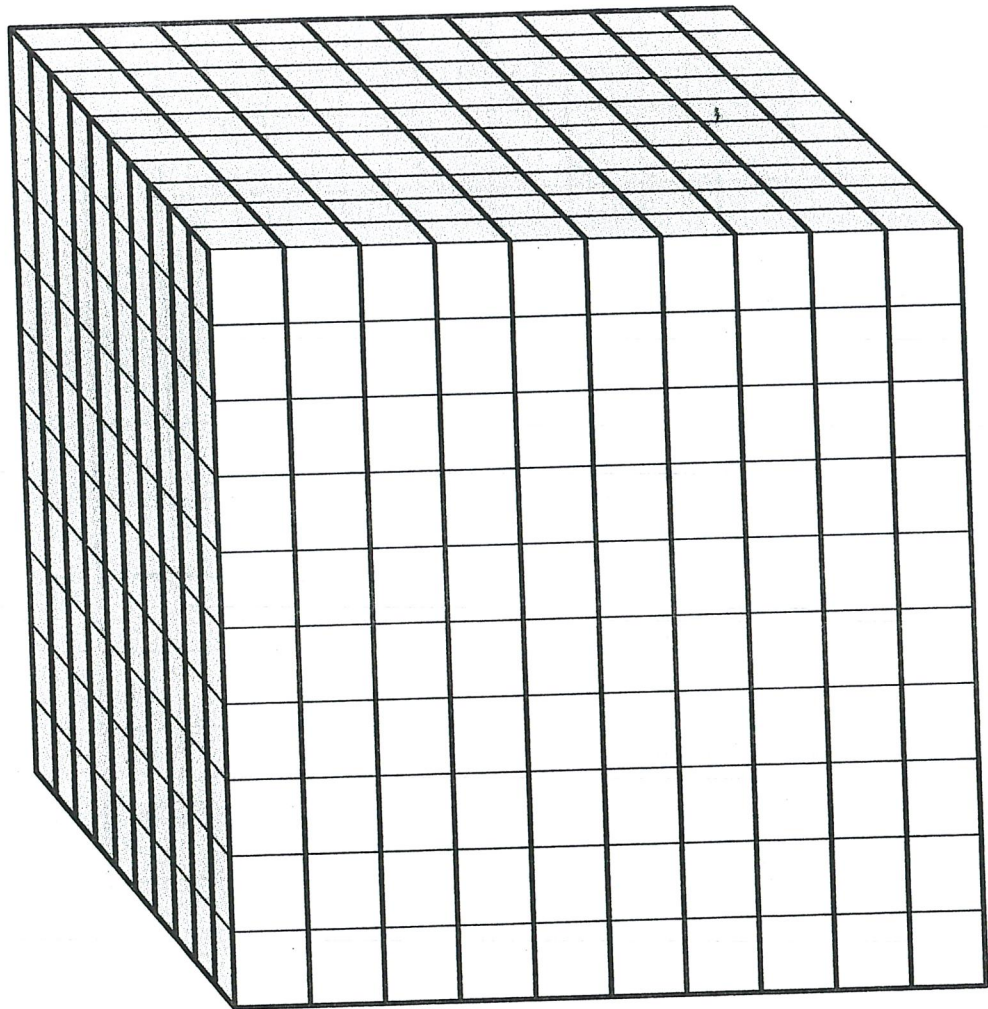
- What numbers can you use to estimate? _____
- Explain how you estimated.

B. How much money did Annie's class raise? How do you know?

C. How many granola bars did Ramal's class sell? How do you know?

D. Together, the two classes want to raise a total of \$3000. How many more granola bars do the two classes need to sell to meet their target?

- How much money have the two classes raised so far?
- How much more money do they need to raise?
- How many more granola bars do they need to sell to raise that much?



Name: _____ Date: _____

Mid-Chapter Review—Frequently Asked Questions

STUDENT BOOK PAGE 304

Q: How can you estimate the product of a decimal number and a one-digit whole number?

A: _____

Q: How can you multiply a decimal number by a one-digit whole number?

A: _____

Name: _____ Date: _____

Chapter Review—Frequently Asked Questions

STUDENT BOOK PAGE 318

Q: How can you estimate the quotient when you divide a decimal by a one-digit whole number?

A: _____

Q: How can you divide a decimal by a one-digit whole number?

A: _____



Unit: Number

Chapter 9: Multiplication and Division of Decimals

Journal Questions (Hint: Make sure to show all your work.):

Which product is between 40 and 50?

1.

A. 12.9×3

C. 8.002×8

B. 6×7.56

D. 9×5.99

2. Esra hung four hockey posters side by side with no spaces between them. Each poster is 19.8 cm wide. What is the combined width of the four posters?

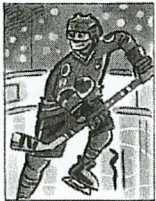
A. 198 cm

C. 23.8 cm

B. 108 cm

D. 79.2 cm

19.8 cm



3. A sandwich is 30.48 cm long. If three people share it equally, how long will each piece be?

A. 3.48 cm

C. 10.16 cm

B. 11.6 cm

D. 10.12 cm



Chapter 9 Self-Assessment: Lesson Goals

Place a check mark in the box that best describes your work.

Lesson Goals	Yes, on my own	Yes, with help	Sometimes/ Not sure	Not yet
I can estimate products of decimal numbers using whole numbers.				
I can multiply decimal hundredths by one-digit numbers using different strategies.				
I can multiply decimal tenths, hundredths, and thousandths by one-digit numbers.				
I can estimate quotients when dividing decimal numbers by one-digit numbers.				
I can use different strategies to divide decimals by one-digit numbers.				
I can divide a decimal by a one-digit number using models and symbols.				
I can work backwards to solve problems that involve decimals.				
<p>Choose one of your answers from above. Give your evidence.</p> <p>My evidence for _____ is</p> <p>_____</p> <p>_____</p> <p>_____</p>				

Chapter 9: Multiplication and Division of Decimals

1. Estimate each product. Will your estimate be higher or lower than the actual answer? Explain.

a) 24×7 is about _____

b) 36×8 is about _____

c) 5×18 is about _____

d) 21×6 is about _____

2. Predict which products are between 200 and 300. How do you know?

a) 5×37 _____

b) 8×27 _____

c) 6×35 _____

d) 7×51 _____

3. Calculate each product.

a) $39 \times 7 =$ _____

g) $29 \times 17 =$ _____

b) $42 \times 8 =$ _____

h) $81 \times 12 =$ _____

c) $15 \times 4 =$ _____

i) $21 \times 22 =$ _____

d) $41 \times 7 =$ _____

j) $11 \times 14 =$ _____

e) $25 \times 9 =$ _____

k) $27 \times 41 =$ _____

f) $42 \times 16 =$ _____

l) $38 \times 12 =$ _____

4. Explain why $8 \times 12 = 4 \times 24$ without actually calculating the product.

5. Estimate each quotient. Will your estimate be higher or lower than the actual answer? Explain.

a) $29 \div 7$ is about _____

b) $426 \div 7$ is about _____

c) $115 \div 8$ is about _____

d) $242 \div 6$ is about _____

6. Calculate each quotient.

a) $161 \div 7$ _____

g) $203 \div 7$ _____

b) $176 \div 8$ _____

h) $243 \div 3$ _____

c) $204 \div 4$ _____

i) $168 \div 8$ _____

d) $112 \div 7$ _____

j) $44 \div 4$ _____

e) $315 \div 9$ _____

k) $162 \div 6$ _____

f) $360 \div 5$ _____

l) $342 \div 9$ _____

7. The Grade 6 class picnic is going to cost about \$330. Each Grade 6 student contributes \$6. How many students are in the class? Explain your thinking.

8. A family of 4 has 362 cellphone minutes to share equally.

a) How many minutes would each member get? Explain your thinking.

b) Would there be any minutes left over? Explain your thinking.
