

# **Unit 2**

## **Adding and Subtracting Decimals**

# Topic A: Adding Decimals

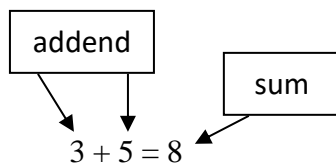
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**Review place value** in whole numbers and in decimal fractions.

Here is a place value chart for decimals:

Whole numbers			Decimal point	Decimals				
hundreds	tens	ones	●	tenths	hundredths	thousandths	Ten thousandths	Hundred thousandths
		3	•	4	5	3		
		0	•	9	6			

**Vocabulary Review** - Use the example below and the glossary to help you write the definitions.



**addends:**

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**sum:**

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To add decimals you must be very careful to add together the digits with the same place value.

Add thousandths to thousandths.

Add hundredths to hundredths.

Add tenths to tenths.

**Here are some techniques to help you organize your decimal addition.**

Write the addends underneath each other so the decimal points are in a straight column.

$$\begin{array}{r} 0.43 + 0.2 + 0.804 + 0.1 = \\ 0.43 \\ 0.2 \\ 0.804 \\ + 0.1 \end{array}$$

Put zeros at the end of the decimal fractions so that all fractions have the same number of decimal places.

$$\begin{array}{r} 0.430 \\ 0.200 \\ 0.804 \\ + 0.100 \end{array}$$

It may help you to put the decimal point in the answer line before you do the addition.

$$\begin{array}{r} 0.300 \\ 0.602 \\ + 0.290 \end{array}$$

When adding mixed decimals, be sure to keep the whole number places lined up as well. As you know, ones add to ones, tens to tens, hundreds to hundreds and so on. Put a decimal point after any whole numbers.

$$\begin{array}{r}
 62.1 + 14.58 + 6. + 7.311 + 6.23 = \\
 62.100 \\
 14.580 \\
 6.000 \\
 7.311 \\
 + 6.230 \\
 \hline
 \end{array}$$

Add each column, starting with the decimal place farthest to the right. If the total of a column is ten or more, carry the ten number to the next column as you are used to doing with whole numbers.

$$\begin{array}{r}
 \begin{array}{r}
 \overset{1}{0} \overset{2}{0} \\
 0.470 \\
 0.298 \\
 0.100 \\
 + 5.60 \\
 \hline
 1.428
 \end{array}
 \qquad
 \begin{array}{r}
 \overset{2}{0} \overset{1}{0} \overset{1}{0} \\
 0.620 \\
 0.281 \\
 0.900 \\
 + 0.549 \\
 \hline
 2.350
 \end{array}
 \end{array}$$

## Exercise One

Rewrite each question in columns and add.

a)  $0.24 + 0.73 + 0.51 =$

$$\begin{array}{r}
 \overset{1}{0} \\
 0.24 \\
 0.73 \\
 + 0.51 \\
 \hline
 1.48
 \end{array}$$

b)  $0.821 + 0.14 + 0.019 =$

$$\begin{array}{r}
 \overset{1}{0} \\
 0.821 \\
 0.140 \\
 + 0.019 \\
 \hline
 0.980
 \end{array}$$

c)  $0.17 + 0.85 + 0.03 =$

d)  $0.72 + 0.3 + 0.54 =$

e)  $0.084 + 0.291 + 0.652 =$

f)  $0.195 + 0.982 + 0.605 =$

g)  $0.232 + 0.8 + 0.715 =$

h)  $0.153 + 0.229 + 0.521 =$

i)  $0.625 + 0.845 + 0.33 =$

j)  $0.442 + 0.782 + 0.254 =$

**Answers to Exercise One**

a) 1.48

b) 0.980

c) 1.05

d) 1.56

e) 1.027

f) 1.782

g) 1.747

h) 0.903

i) 1.8

j) 1.478

## Exercise Two

Rewrite in columns and add.

a)  $1.003 + 141.2 + 0.47 =$

$$\begin{array}{r} 1.003 \\ 141.200 \\ + 0.470 \\ \hline 142.673 \end{array}$$

b)  $5.8 + 3.50 + 1\,700 =$

$$\begin{array}{r} 5.80 \\ 3.50 \\ + 1\,700.00 \\ \hline 1709.30 \end{array}$$

c)  $5.6 + 3.59 + 1\,829 =$

d)  $0.391 + 80 + 4.63 =$

e)  $0.001 + 0.150 + 0.12 =$

f)  $6.341 + 0.02 + 1.6 =$

g)  $0.9764 + 147 + 67.31 =$

h)  $53.261 + 3.59 + 0.0068 =$

i)  $16.34 + 211.684 + 75.0697 =$

j)  $321.6 + 485.791 + 0.001 =$

k)  $64.1 + 18 + 49.003 =$

l)  $47.91 + 5.3 + 0.00163 =$

m)  $0.22 + 46.84 + 95.6 =$

n)  $0.042 + 0.018 + 19.1 =$

**Answers to Exercise Two**

a) 142.673

b) 1838.19

c) 1838.19

d) 85.021

e) 0.271

f) 7.961

g) 215.2864

h) 56.8578

i) 303.0937

j) 807.392

k) 131.103

l) 53.21163

m) 142.66

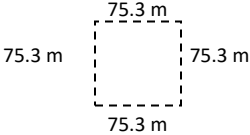
n) 19.16

## Exercise Three


Remember that perimeter is the measurement around the outside edge of an object. To find perimeter, you add the lengths of all the sides together.

Find the perimeter of the **squares** described in each question. The measure of one side has been given. Draw a picture of each square to help visualize the question.

a)  $s = 75.3 \text{ m}$   
 $P = S + S + S + S$   
 $P = 75.3 + 75.3 + 75.3 + 75.3 \text{ m}$   
 $P =$



b)  $s = 12.4 \text{ mm}$   
 $P =$



c)  $s = 100.73 \text{ km}$   
 $P =$

d)  $s = 50.2 \text{ cm}$

e)  $s = 130.07 \text{ m}$

f)  $s = 1\,000.82 \text{ km}$

g)  $s = 16.5 \text{ m}$

h)  $s = 3.25 \text{ m}$

### Answers to Exercise Three

a) 301.2 m

b) 49.6 mm

c) 402.92 km

d) 200.8 cm

e) 520.28 m

f) 4003.28 km

g) 66 m

h) 13 m

## Exercise Four

Find the perimeter of the rectangles described below.  
You may wish to draw and label a sketch for the ones  
with no pictures.

a)

7.5 m



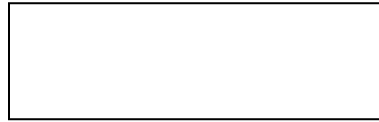
3.1 m

$P = \text{side} + \text{side} + \text{side} + \text{side}$

$P =$

b)

10.45 cm



5.3 cm

$P = \text{side} + \text{side} + \text{side} + \text{side}$

$P =$

c)

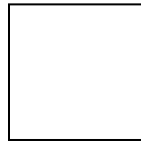
4.3 m



3.7 m

d)

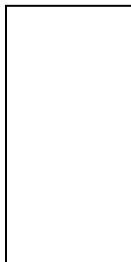
3.8 cm



5.7 cm

e)

2.1 cm

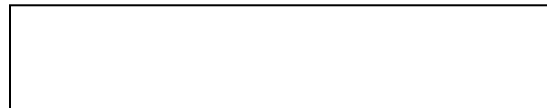


7.5 cm

f)

7.5 m

1.5 m

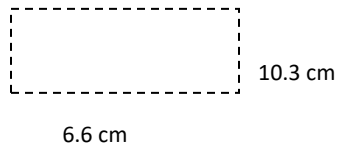




g)  $l = 10.3 \text{ cm}$   
 $w = 6.6 \text{ cm}$

h)  $l = 100.03 \text{ km}$   
 $w = 70.96 \text{ km}$

i)  $l = 15.5 \text{ mm}$   
 $w = 10.5 \text{ mm}$



j)  $l = 9.75 \text{ cm}$   
 $w = 3.5 \text{ cm}$

k)  $l = 40.47 \text{ km}$   
 $w = 10.4 \text{ km}$

l)  $l = 19.6 \text{ cm}$   
 $w = 2.8 \text{ cm}$

#### Answers to Exercise Four

a) 21.2 m

b) 31.5 cm

c) 16 m

d) 19 cm

e) 19.2 cm

f) 18 m

g) 33.8 cm

h) 341.98 km

i) 52 mm

j) 26.5 cm

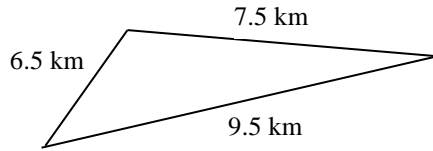
k) 101.74 km

l) 44.8 cm

## Exercise Five

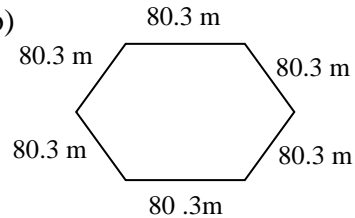
Find the perimeter of the polygons described below. Be sure the measurements are in the same unit value. Use a formula for each calculation, the formula work is started in the first two for you.

a)



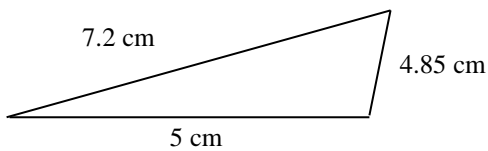
$$\begin{aligned} P &= \text{Side} + \text{Side} + \text{Side} \\ P &= 6.5 \text{ km} + 7.5 \text{ km} + 9.5 \text{ km} \\ P &= \\ P &= \\ P &= \end{aligned}$$

b)



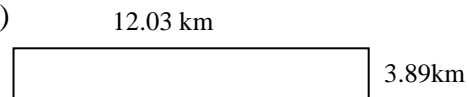
$$\begin{aligned} P &= \text{Side} + \text{Side} + \text{Side} + \text{Side} + \text{Side} + \text{Side} \\ P &= \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ + \_\_\_\_\_\_ \\ P &= \\ P &= \end{aligned}$$

c)



$$P =$$

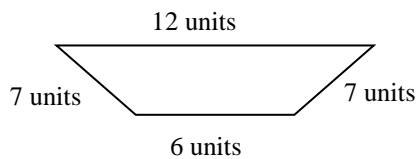
d)



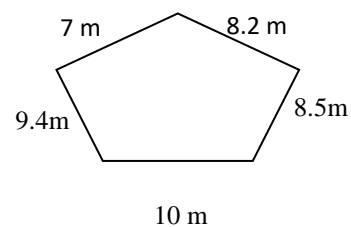
$$P =$$

Units can be anything from centimetres, to litres to ice cubes to plain old “units”.

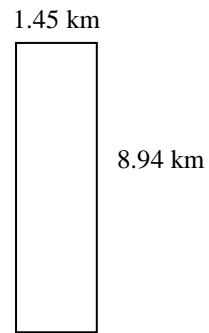
e)



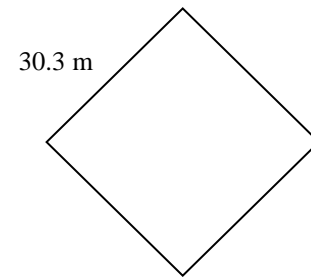
f)



g)



h)



**Answers to Exercise Five**

a) 23.5 km

b) 481.8 m

c) 17.05 cm

d) 31.84 km

e) 32 units

f) 43.1 m

g) 20.78 km

h) 121.2 m

# Problem Solving Steps

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Word problems describe a real-life situation that involves numbers. Often the most difficult part of working with numbers is knowing **what** we should do, then it is easy to know **how** to do it.

It is sort of like dancing. You may know **how** to jive, rhumba, cha cha, waltz, polka, etc., but when the music plays, the question is "**What** dance is it?" So you listen to the music until you find a dance that fits.



Okay, how do you "listen to" a math problem? Use these steps:

**Step 1**      **READ** the problem carefully. Decide what you have to find out. What is the **QUESTION**? Draw a picture to help you see the problem described.

**Step 2**      What does the problem tell you? What **INFORMATION** is **NECESSARY** to solve the problem? Often you are given extra numbers and information that are not needed.  
Circle the information you need.  
Write out the information you need with the picture you drew.

**Step 3** Decide what **ARITHMETIC OPERATION** to use. Do you add, subtract, multiply, or divide? Does the problem have two parts?

- **Key words** often point to the operation needed.
- Drawing a diagram or sketch is often helpful.
- Write an equation (a number sentence).

**Step 4** **ESTIMATE** the answer to the problem.

- Round the numbers so you can work with them quickly.
- Use the operation you chose in Step 3 and come to a quick answer.

Does this estimated answer make sense? Does it answer the question in the problem? **THINK** carefully before you do Step 5.

**Step 5** **SOLVE** the problem using the **actual** numbers.

- Check your arithmetic.
- Compare to your estimate.
- Think again about the problem. Does your solution make sense?
- State **what** the numbers are counting (the units) when you write the answer. The answer could be 3 dozen eggs, 3 kilometres, or 3 people.

**Some common metric units and their abbreviations**

kilometre	km	kilogram	kg
metre	m	gram	g
centimetre	cm	litre	L

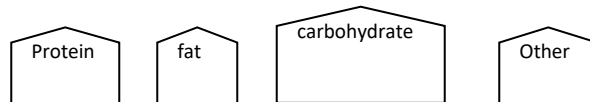
### Example A:

The nutrition information on a box of cereal says that a regular serving contains 2.8 g of protein, 0.2 g of fat, 25 g of carbohydrate, and 1.9 g of "other nutrients". Give the total number of grams in a regular serving.

#### Step 1 QUESTION?

How many grams in a regular serving?

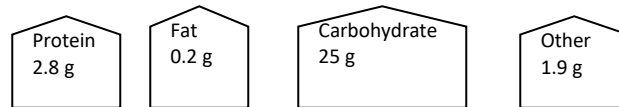
Draw a picture:



#### Step 2 NECESSARY INFORMATION

A regular serving contains 2.8 g protein, 0.2 g fat, 25 g carbohydrate, and 1.9 g "other nutrients".

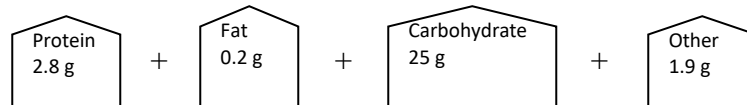
Add to your  
Picture:



#### Step 3 OPERATION

Problem lists four different amounts and asks you to find one total. "Total" points to adding.

Add the operation  
You need to your  
Picture:



Then, write an equation:

$$2.8 + 0.2 + 25 + 1.9 = \text{total number of grams}$$

**Step 4 ESTIMATE**

$$\begin{array}{rcl} 2.8 \text{ g} & \approx & 3 \text{ g} \\ 0.2 \text{ g} & \approx & 0 \text{ g} \\ 25 \text{ g} & \approx & 25 \text{ g} \\ 1.9 \text{ g} & \approx & \underline{+ 2 \text{ g}} \\ & & 30 \text{ g} \end{array}$$

Does this answer make sense?

**Step 5 SOLVE**

$$\begin{array}{r} 1 \\ 2.8 \text{ g} \\ 0.2 \\ 25.0 \\ + 1.9 \\ \hline 29.9 \text{ g} \end{array}$$

A regular serving of cereal is 29.9 grams.

- Check arithmetic
- Compare to estimate
- Makes sense?

Some **key words** that point to **addition** include:

**sum**

**total**

**altogether**

**complete**

**in all**

**increased by**

**plus**

**total amount**

**combined**

**entire**

**added to**

## Exercise Six

Use your skills in adding decimal fractions to do the following problems. Underline key words in the problems that will help you to recognize addition problems.

Remember to first draw a picture!

- a) A road construction crew finished surfacing 5.7 km of highway one week and 4.4 km the next week. How many kilometres did they complete in that two weeks? (a picture is drawn for you here)

5.7 km	+	4.4 km
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Estimation:  $6\text{ km} + 4\text{ km} = 10\text{ km}$

Actual Solution:

$$\begin{array}{r} 5.7\text{ km} \\ + 4.4\text{ km} \\ \hline 10.1\text{ km} \end{array}$$

*The road crew completed 10.1 km of road surfacing in two weeks.*

- b) When Ted bought his used car, the odometer showed 12 686.4 km. In one year he drove it 13 294.8 km. What did the odometer read then? (draw your own picture now)

Estimation:

Actual Solution:



c) Joanne phoned to ask her partner to pick up some groceries on his way home. He said, "I only have \$20. Will that be enough?" Joanne wanted him to buy milk (\$4.86), bread (\$1.45), a bag of apples on sale for \$3.99 and laundry detergent (\$8.57). Does he have enough money?

Estimation:

Actual Solution:

d) A recipe for spaghetti sauce uses 1.25 kg of ground beef, 2.4 kg of fresh tomatoes, 1 kg of onions, 0.75 kg of celery, 0.5 kg of green pepper and lots of garlic and herbs. What is the total weight of the ingredients, not counting the garlic and herbs?

Estimation:

Actual Solution:

e) This month your power bill has increased \$24.67, your phone bill has an extra \$13.43 and your cable bill is up \$2.24—great month! What is the combined extra cost that you are paying this month?

Estimation:

Actual Solution:

f) One side of a square Deluxe Scrabble board measures 38.7 cm. What is the perimeter of the board?

Estimation:

Actual Solution:

g) The campground security officer walks around the outside of the campground four times every evening. The campground is 800.75 m square. How far does the officer walk in these patrols each night?

**Note:** *800.75 m square* is a common way of saying “a square with sides that each measure 800.75 m.”

Estimation:

Actual Solution:

### Answers to Exercise Six

a) Estimation:  $6 \text{ km} + 4 \text{ km} \approx 10 \text{ km}$

Actual Solution:  $5.7 \text{ km} + 4.4 \text{ km} = 10.1 \text{ km}$

*The road crew completed 10.1 km of road surfacing in two weeks.*

b) Estimation:  $13\,000 \text{ km} + 13\,000 \text{ km} = 26\,000 \text{ km}$

Actual Solution:  $12\,686.4 \text{ km} + 13\,294.8 \text{ km} = 25\,981.2 \text{ km}$

The odometer read 25 981.2 km.

c) Estimation:  $\$5 + \$1 + \$4 + \$9 = \$19$

Actual Solution:  $\$4.86 + \$1.45 + \$3.99 + \$8.57 = \$18.87$

The groceries will cost \$18.87, so he will have enough money.

d) Estimation:  $1 \text{ kg} + 2 \text{ kg} + 1 \text{ kg} + 1 \text{ kg} + 1 \text{ kg} = 6 \text{ kg}$

Actual Solution:  $1.25 \text{ kg} + 2.4 \text{ kg} + 1 \text{ kg} + 0.75 \text{ kg} + 0.5 \text{ kg} = 5.9 \text{ kg}$

The total weight of the ingredients is 5.9 kg.

e) Estimation:  $\$25 + \$13 + \$2 = \$40$

Actual Solution:  $\$24.67 + \$13.43 + \$2.24 = \$40.34$

The extra cost you are paying is \$40.34.

f) Estimation:  $40 \text{ cm} + 40 \text{ cm} + 40 \text{ cm} + 40 \text{ cm} = 160 \text{ cm}$

Actual Solution:  $38.7 \text{ cm} \times 4 = 154.8 \text{ cm}$

The perimeter of the Scrabble board is 154.8 cm

g) Estimation:  $801 \text{ m} \times 4 \times 4 = 12\,816 \text{ m}$

Actual Solution:  $800.75 \times 4 \times 4 = 12\,812 \text{ m}$

The campground security officer walks 12 812 m each night on her patrol.

**A. Find the sum.****6 marks**

a) 
$$\begin{array}{r} 3.67 \\ 12.55 \\ 8.19 \\ + 5.67 \\ \hline \end{array}$$

b)  $5.27 + 2.4 + 8 + 6.93 + 10.27 =$

c) 
$$\begin{array}{r} 0.183 \\ 19.76 \\ 8.029 \\ + 3.38 \\ \hline \end{array}$$

d)  $8.173 + 4.68 + 1.275 + 7.331 =$

e) 
$$\begin{array}{r} 4.648 \\ 1.92 \\ 1.275 \\ + 86.9 \\ \hline \end{array}$$

f)  $2.72 + 0.6 + 110 + 17.223 =$

**B. Problems****4 marks**

a) Gwen has to mail her Christmas gifts to her family as they do not live near her. A box for Vancouver weighed 3.7 kg, the gift to her sister's family in Campbell River was 2.145 kg, the one to Prince George was 1.06 kg and the parcel to Toronto was 4 kg. What was the combined weight of Gwen's parcels?

Estimation:

Actual Solution:

b) George purchased new running shoes for his three kids. The six year old's shoes at \$15.85 were a bargain. The nine year old got a pair of runners for \$39.30, but the teen-aged daughter **had** to have the fancy pair that cost \$89.95. How much did George spend on the three pairs of running shoes, before taxes?

Estimation:

Actual Solution:

**Answers to Topic A Self-Test****Part A**

- a) 30.08                      b) 32.87                      c) 31.352                      d) 21.459  
e) 94.743                      f) 130.543

**Part B**

- a) Estimation:  $4 \text{ kg} + 2 \text{ kg} + 1 \text{ kg} + 4 \text{ kg} = 11 \text{ kg}$

Actual Solution:  $3.7 \text{ kg} + 2.145 \text{ kg} + 1.06 \text{ kg} + 4 \text{ kg} = 10.905 \text{ kg}$

The combined weight of the parcels was 10.905 kg.

- b) Estimation:  $\$15 + \$40 + \$90 = \$145$

Actual Solution:  $\$15.85 + \$39.30 + \$89.95 = \$145.10$

George spent \$145.10 on the three pairs of running shoes.

## Topic B: Subtracting Decimals

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To subtract decimals **you must subtract each digit from the digit of the same place value.**

Subtract thousandths from thousandths.

Subtract hundredths from hundredths.

Subtract tenths from tenths.

The same techniques that you used in adding decimals are helpful when you subtract decimals.

1. Write the number that you are starting with. Put the amount you are subtracting underneath so the decimal points are in a straight column.

$$\begin{array}{r} 0.468 - 0.3 = \quad 0.468 \\ \quad \quad \quad - 0.3 \quad \quad \quad \\ \hline \end{array}$$

2. Put zeros at the end of the decimals so that all the decimals in the question have the same number of decimal places.

$$\begin{array}{r} 0.468 - 0.3 = \quad 0.468 \\ \quad \quad \quad - 0.300 \\ \hline \end{array}$$

3. Use the subtracting skills that you know from working with whole numbers.

**Example:**

$$2.536 - 0.59 =$$

- 1) *Rewrite the problem:*

$$\begin{array}{r} 2.536 \\ - 0.590 \\ \hline \end{array}$$

$$\begin{array}{r} 2) \quad 2.536 \\ - 0.590 \\ \hline \quad \quad 6 \end{array}$$

- 3) *now you will need to borrow:*

$$\begin{array}{r} \quad \quad 4 \quad 1 \\ \quad 2.\cancel{5}36 \\ - 0.590 \\ \hline \quad \quad 46 \end{array}$$



4) *And borrow again*

$$\begin{array}{r} \overset{1}{\cancel{2}} \overset{14}{3} \overset{1}{6} \\ - 0.590 \\ \hline .946 \end{array}$$

5) *and then finish the problem*

$$\begin{array}{r} \overset{1}{\cancel{2}} \overset{14}{3} \overset{1}{6} \\ - 0.590 \\ \hline 1.946 \end{array}$$

**Vocabulary Review** - Write the definition.

$$8 - 5 = 3 \leftarrow \begin{array}{|c|} \hline \text{difference} \\ \hline \end{array}$$

**Difference:**

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## Exercise One

Subtract to find the differences.

$$\begin{array}{r} \text{a)} \quad 2.75 \\ - 0.68 \\ \hline 2.07 \end{array}$$

$$\begin{array}{r} \text{b)} \quad 9.64 \\ - 7.15 \\ \hline 2.49 \end{array}$$

$$\begin{array}{r} \text{c)} \quad 3.85 \\ - 1.75 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d)} \quad 1.17 \\ - 0.92 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e)} \quad 27.3 \\ - 18.9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f)} \quad 0.732 \\ - 0.651 \\ \hline \end{array}$$

$$\begin{array}{r} \text{g)} \quad 0.803 \\ - 0.411 \\ \hline \end{array}$$

$$\begin{array}{r} \text{h)} \quad 7.17 \\ - 2.08 \\ \hline \end{array}$$

$$\begin{array}{r} \text{i)} \quad 9.00 \\ - 1.75 \\ \hline \end{array}$$

$$\begin{array}{r} \text{j)} \quad 0.362 \\ - 0.177 \\ \hline \end{array}$$

$$\begin{array}{r} \text{k)} \quad 6.85 \\ - 1.28 \\ \hline \end{array}$$

$$\begin{array}{r} \text{l)} \quad 18.5 \\ - 7.9 \\ \hline \end{array}$$

$$\begin{array}{r} \text{m)} \quad 6.273 \\ - 0.192 \\ \hline \end{array}$$

$$\begin{array}{r} \text{n)} \quad 12.35 \\ - 8.47 \\ \hline \end{array}$$

$$\begin{array}{r} \text{o)} \quad 6.152 \\ - 4.071 \\ \hline \end{array}$$

$$\begin{array}{r} \text{p)} \quad 98.6 \\ - 45.8 \\ \hline \end{array}$$

$$\begin{array}{r} \text{q)} \quad 5.276 \\ - 3.298 \\ \hline \end{array}$$

$$\begin{array}{r} \text{r)} \quad 5.251 \\ - 2.738 \\ \hline \end{array}$$

**Answers to Exercise One**

a) 2.07	b) 2.49	c) 2.10	d) 0.25
e) 8.4	f) 0.081	g) 0.392	h) 5.09
i) 7.25	j) 0.185	k) 5.57	l) 10.6
m) 6.081	n) 3.88	o) 2.081	p) 52.8
q) 1.978	r) 2.513		

# Subtracting a Decimal from a Whole Number

---

Follow these steps to subtract a decimal from a whole number:

- Put a **decimal point after the whole number**.

$$16 - 0.4 = 16. - 0.4$$

- **Put zeros after the decimal point** as needed.

$$\begin{array}{r} 16 - 0.4 = \quad 16.0 \\ \quad \quad \quad - 0.4 \\ \hline \end{array}$$

- Do the subtraction as usual. See that you will need to borrow right away.

**Example A:**  $32 - 0.12 =$

$$\begin{array}{r} 32.00 \\ - 0.12 \\ \hline \end{array}$$

- Rename the 2 in the ones place as 1 and 10 tenths.

$$\begin{array}{r} \phantom{1} 10 \\ 3\cancel{2}.00 \\ - 0.12 \\ \hline \end{array}$$

- Now rename the 10 tenths as 9 tenths and 10 hundredths. You are ready to subtract.

$$\begin{array}{r} \phantom{1} 9 \\ \phantom{1} 10 \\ 3\cancel{2}.00 \\ - 0.12 \\ \hline 31.88 \end{array}$$

**Example B:**  $\$14 - \$3.49$

$$\begin{array}{r} \$14.00 \\ - 3.49 \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{3} 9 \\ \phantom{3} 10 \\ \$14.00 \\ - 3.49 \\ \hline \$10.51 \end{array}$$

## Exercise Two

Rewrite each question in columns and find the difference.

a)  $6 - 3.42 =$

$$\begin{array}{r} \phantom{5\ 10\ 10} \\ \phantom{5\ 10\ 10} \cancel{6.00} \\ - 3.42 \\ \hline 2.58 \end{array}$$

b)  $14 - 9.23 =$

$$\begin{array}{r} 14.00 \\ - 9.23 \\ \hline \end{array}$$

c)  $11 - 3.821 =$

d)  $2 - 1.98 =$

e)  $7 - 6.815 =$

f)  $212 - 3.006 =$

g)  $22 - 13.51 =$

h)  $7 - 3.976 =$

### Answers to Exercise Two

a) 2.58

b) 4.77

c) 7.179

d) 0.02

e) 0.185

f) 208.994

g) 8.49

h) 3.024



If you had problems with this, go over your subtraction method with your instructor before you continue.

## Exercise Three

Rewrite each question in columns and find the difference.

a)  $163.682 - 41.5 =$

$$\begin{array}{r} 163.682 \\ - 41.500 \\ \hline 122.182 \end{array}$$

b)  $361.008 - 4.595 =$

c)  $\$60 - \$44.28 =$

d)  $\$4.00 - \$0.44 =$

e)  $\$260.06 - \$3 =$

f)  $193 - 37.06 =$

g)  $89.0309 - 6.3 =$

h)  $\$56.59 - \$4.17 =$

i)  $\$100 - \$13.75 =$

j)  $519.3 - 68.009 =$

### Answers to Exercise Three

a) 122.182

b) 356.413

c) \$15.72

d) \$3.56

e) \$257.06

f) 155.94

g) 82.7309

h) \$52.42

i) \$86.25

j) 451.291

## Problems Using Subtraction of Decimals

---



**Key words** which point to **subtraction** include:

**difference**

**balance**

**minus**

**amount left**

**subtracted from**

**decreased by**

**reduced by**

**taken away**

**less**

Questions may ask you to compare or find the difference between two amounts. Look for such words as **how much greater (or larger, taller, more)**, **how much less (or smaller, shorter)**.

**What are the savings? Subtract to find the answer.**

### Exercise Four

Use your skills in subtracting decimals to do the following problems. Underline key words in the problems that will help you to recognize subtraction problems. Try to draw pictures to help yourself see the problem in real life.

- a) Brad is 1.8 m tall. He just did the best high jump of his life, clearing 1.89 m. How much less is his own height than the height he jumped?

Estimation:

Actual Solution:

b) Jonathan's best track and field event is long jump. He leapt 6.16 m. His dad used to long jump in high school and jumped 5.52 m. How much farther did Jonathan jump than his dad?



Estimation (to tenths):

Actual Solution:

c) Joe had a bank balance of \$438. He wrote a cheque for \$56.59 to pay for a phone bill. What is the balance in his bank account now?

Estimation:

Actual Solution:



d) A plumber needs to replace 11.5 m of pipe in a home. She has 6.5 m in her truck. How much more pipe does she need?

Estimation:

Actual Solution:

e) One store advertises coffee for \$3.19 a kilogram. Another store sells coffee at \$2.99 per kilogram. What is the saving if the coffee is bought at the second store?

Estimation:

Actual Solution:

f) George's car averages 6.3 kilometres per litre of gasoline. Bill's car averages 5.55 km/L gasoline. How much better is George's car than Bill's in its use of gasoline?

Estimation (to tenths):

Actual Solution:

g) Lee is going to install base boards in the recreation room he has built in his basement. The room is 5.8 metres square. The baseboard material is expensive, so he will be sure to deduct 1 m for each of the two doorways. How much baseboard material does he need to buy?

Estimation (to tenths):

Actual Solution:

**Answers to Exercise Four**

a) Estimation:  $1.9 \text{ m} - 1.8 \approx 0.1 \text{ m}$

Actual Solution:  $1.89 - 1.8 = 0.09 \text{ m}$

Brad's height is 0.09 m less than the height he jumped.

b) Estimation:  $6.2 - 5.5 \approx 0.7 \text{ m}$

Actual Solution:  $6.16 - 5.52 = 0.64 \text{ m}$

Jonathan jumped 0.64 m farther than his dad.

c) Estimation:  $\$440 - \$60 \approx \$380$

Actual Solution:  $\$438 - \$56.59 = \$381.41$

Joe's bank balance is now \$381.41.

d) Estimation:  $12 \text{ m} - 7 \text{ m} \approx 5 \text{ m}$

Actual Solution:  $11.5 \text{ m} - 6.5 \text{ m} = 5 \text{ m}$

The plumber needs 5 m more of pipe.

e) Estimation:  $\$3.20 - \$3.00 \approx \$0.20$

Actual Solution:  $\$3.19 - \$2.99 = \$0.20$

The savings will be \$0.20 if the coffee is bought at the second store.

f) Estimation:  $6.3 - 5.6 \approx 0.7 \text{ km/L}$

Actual Solution:  $6.3 - 5.55 = 0.75 \text{ km/L}$

George's car is 0.75 km/L better than Bill's car.

g) Estimation:  $6 \text{ m} \times 4 = 24 \text{ m}$

$24 \text{ m} - 2 \text{ m (doors)} = 22 \text{ m}$

Actual Solution:  $5.8 \text{ m} \times 4 = 23.2 \text{ m}$

$23.2 \text{ m} - 2 \text{ m (doors)} = 21.2 \text{ m}$

Lee will need to buy 21.2 m worth of base board material.

## Topic B: Self-Test

Mark /10 Aim 8/10

---

### A. Subtract

6 marks

a) 
$$\begin{array}{r} 72.04 \\ - 13.98 \\ \hline \end{array}$$

b)  $19.6 - 6.254 =$

c) 
$$\begin{array}{r} 88.402 \\ - 16.51 \\ \hline \end{array}$$

d)  $1\,100 - 248.91 =$

e) 
$$\begin{array}{r} 11.21 \\ - 3.875 \\ \hline \end{array}$$

f)  $\$140 - \$102.73 =$

### B. Problems

4 marks

a) Gail spent \$273.24 on her shopping trip. She had taken \$300 with her. How much of her money is left?

Estimation:

Actual Solution:

b) To connect the new phone in her bedroom Marian needs 4.25 m of wire. The wire that she found in the workshop is 3.9 m in length. How much more wire does Marian need?

Estimation (to tenths):

Actual Solution:

**Answers to Topic B Self-Test**

**Part A**

a) 58.06

b) 13.346

c) 71.892

d) 851.09

e) 7.335

f) \$37.27

**Part B**

a) Estimation:  $\$300 - \$275 \approx \$25$

Actual Solution:  $\$300 - \$273.24 = \$26.76$

Gail had \$26.76 left after her shopping trip.

b) Estimation:  $4.3 \text{ m} - 4.0 \text{ m} = 0.3 \text{ m}$

Actual Solution:  $4.25 \text{ m} - 3.9 \text{ m} = 0.35 \text{ m}$

Marian needs 0.35 m more of wire.

## Topic C: Bookkeeping

---

One everyday use of adding and subtracting decimals is the bookkeeping that we all must do with our money. Some examples follow:

- Balancing a cheque book
- Keeping track of payments
- Figuring out how much money to take on a trip
- Stretching a pay cheque over two weeks
- Organizing the household budget
- Deciding how much lunch money the children need

List some other examples of bookkeeping that you do:

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---

The bookkeeping that most of us do is straightforward:

- Add on money received or deposited to our accounts.
- Subtract money spent or paid out.
- The result of the addition or subtraction is the **balance**.

### Methods of Payment

There are many different methods of paying for purchases. Some of the most common methods are:

- Cash
- Debit card
- Credit card
- Cheque
- Online payment (ex: paypal, RBS WorldPay)

There are benefits to each method of payment. Each person chooses to do what works best for his or her own style and comfort. Here is a list of some of the benefits and drawbacks of each method of payment.

## 1) Cash

Advantages:

- It is quick and easy to pull money out of your wallet
- You can see how much money you have left
- It is impossible to overspend
- It is a great method to use if you do not have a bank account

Disadvantages:

- It is easier to lose
- You may need to continue to visit the bank to get money out
- You might run out of cash while trying to pay at the till

## 2) Debit card

Advantages:

- It is quick at the till
- You cannot spend more than you have in your bank account
- It is safe

Disadvantages:

- There is often a service fee with using the card to pay for shopping
- You cannot always use it for on-line shopping

## 3) Credit card

Advantages:

- You only have to pay the company money once a month
- It is quick at the till
- It is easy to keep track of what you have spent because the credit card company sends you a monthly statement
- You can use a credit card for on-line shopping

Disadvantages:

- It is really easy to overspend your budget because you do not have to pay any money up front
- There are often service charges once a year that are expensive
- You can get into debt with a credit card and it may be really hard to get out of that debt

#### 4) Cheque

Advantages:

- It can be convenient when you want to mail someone money
- It is safe
- The check book helps you keep a written record of your bank balance

Disadvantages:

- Some stores do not accept cheques, or several pieces of identification are needed, usually a driver's licence and a credit card.
- Most banks and credit unions have a small service charge for each cheque that you write.
- If your account is **overdrawn** your cheque will be **N.S.F.** (Not Sufficient Funds) for which you are charged extra by the store **and** the bank. To avoid this, keep **careful, up-to-date records** so you always know your balance.

#### 5) Online Payment:

Advantages:

- It allows you to shop online securely
- You can pay directly online with money from your bank account or your credit card
- You can easily send money to friends or family

Disadvantages:

- You may not have rights that regular banks give you when you use an online payment company.
- The company is not local, and so any problems may be hard to resolve.
- There are fees charged to have an online payment account.

No matter what method of payment you choose to use, it is very helpful to keep track of your money. You can use a record book to mark in when you spent money and when you were paid money. This will help with budgeting and planning.



# Keeping a Bank Book Record

---

Bank books have a space for record keeping similar to this:

DATE	CHEQUE NO.	CHEQUES ISSUED TO OR DESCRIPTION OF DEBIT OR DEPOSIT	DEBIT OR CHEQUE AMOUNT	✓	DEPOSIT AMOUNT	BALANCE
		<b>BALANCE FORWARD</b>				

One line is given for each **transaction** that you do. The transactions are usually recorded in chronological order, which is the order by the date or time. The columns are described:

- ❖ **Date** - The date of the transaction. The examples given use this method: March 29 is the 29th day of the 3rd month. Write it as 29/3.
- ❖ **Cheque No.** - Write the number that is usually found on the top right corner of your cheque. This is **NOT** your account number.
- ❖ **Cheque Issued to or Description of Debit or Deposit** - Details of who your cheques were written to, of what you used your debit card for, if you withdrew cash, or made a deposit.
- ❖ **Amount of Cheque or Debit** - Write the exact amount of the cheque, debit, or cash withdrawal. **Subtract** this amount from the balance. Note that a dotted line is often drawn for you to separate the dollars from the cents. You may put the decimal on the line if you wish.
- ❖ **Amount of Deposit** - **Add** this amount to your balance.
- ❖ Use the column with the tick mark (✓) when you compare your debit card/cheque book record to the statement from the bank.
- ❖ **Balance Forward** - The balance from the previous page in the record book.
- ❖ **Balance** - The amount in your bank account after each transaction.

## Exercise One

Look carefully at this sample debit card/cheque book record and answer the questions that follow.

DATE	CHEQUE NO.	CHEQUES ISSUED TO OR DESCRIPTION OF DEBIT OR DEPOSIT	DEBIT OR CHEQUE AMOUNT	✓	DEPOSIT AMOUNT	BALANCE
		<b>BALANCE FORWARD</b>				<i>121 16</i>
<i>29/3</i>	<i>-</i>	<i>Pay deposit</i>			<i>675 62</i>	<i>796 78</i>
<i>30/3</i>	<i>161</i>	<i>Finance Co. (car loan)</i>	<i>175 40</i>			<i>621 38</i>
<i>30/3</i>	<i>162</i>	<i>B.C. Hydro (Feb-Mar)</i>	<i>50 27</i>			<i>571 11</i>
<i>5/4</i>		<i>\$ for birthday gift</i>			<i>25 00</i>	<i>596 11</i>
<i>8/4</i>	<i>163</i>	<i>Telus</i>	<i>19 80</i>			<i>576 31</i>
<i>9/4</i>		<i>Grocery Mart</i>	<i>128 54</i>			<i>447 77</i>
<i>9/4</i>		<i>Cash</i>	<i>30 00</i>			<i>417 77</i>

- Name the month when the cheque to Telus was written: \_\_\_\_\_
- What is the amount of the debit to the Grocery Mart? \_\_\_\_\_
- How much was the pay deposit? \_\_\_\_\_
- What was the balance after the B.C. Hydro transaction? \_\_\_\_\_
- How much was the balance forward? \_\_\_\_\_
- How many deposits were made? \_\_\_\_\_
- What is the total amount of the deposits? \_\_\_\_\_

## Exercise Two

Complete the debit card/check book record using the information below.

DATE	CHEQUE NO.	CHEQUES ISSUED TO OR DESCRIPTION OF DEBIT OR DEPOSIT	DEBIT OR CHEQUE AMOUNT	✓	DEPOSIT AMOUNT	BALANCE
		<b>BALANCE FORWARD</b>				

April 23	Balance forward	\$210.83
April 25	Cash withdrawal	\$45.00
April 28	Debit to Grocery Mart	\$99.95
April 30	Pay deposit	\$843.29
May 1	Cheque #48 to Mark Jones for rent	\$420.00
May 3	Cheque #49 to children's school (for sports)	\$25.00
May 6	Debit to Self-Serve gas	\$18.27
May 8	Cash withdrawal	\$110.00
May 10	Cheque #50 to Acme Finance Co. (car payment)	\$150.00
May 12	Deposit Child Care Tax Refund	\$66.48
May 13	Debit to Grocery Mart	\$183.00
May 15	Pay deposit	\$792.18

### Answers to Exercise Two

DATE	CHEQUE NO.	CHEQUES ISSUED TO OR DESCRIPTION OF DEBIT OR DEPOSIT	DEBIT OR CHEQUE AMOUNT		✓	DEPOSIT AMOUNT		BALANCE	
		<b>BALANCE FORWARD</b>						210	83
25/4		Cash Withdrawal	45	00				165	83
28/4		Grocery Mart	99	95				65	88
30/4		Pay Deposit				843	29	909	17
1/5	48	Rent	420	00				489	17
3/5	49	Children's School (sports)	25	00				464	17
6/5		Self-Serve Gas	18	27				445	90
8/5		Cash Withdrawal	110	00				335	90
10/5	50	Acme Finance Co. (car payment)	150	00				185	90
12/5		Child Care Tax Refund				66	48	252	38
13/5		Grocery Mart	183	00				69	38
15/5		Pay Deposit				792	18	861	56

# Cheque Writing

---

Your name (A) \_\_\_\_\_  
Your address \_\_\_\_\_  
Your phone number \_\_\_\_\_ (C) 19 \_\_\_\_\_ NO. (B) \_\_\_\_\_  
PAY TO THE ORDER OF (D) \_\_\_\_\_ \$ (E) \_\_\_\_\_  
(F) \_\_\_\_\_ 100 DOLLARS  
A.B.E. Bank  
123 Math Drive (H) Account # 123-321-456  
ABESville, B.C.  
MEMO (I) \_\_\_\_\_ (G) \_\_\_\_\_  
*SAMPLE ONLY*

- a) When you have a chequing account, you have cheques printed with your name, address and phone number, usually in the top left corner.
- b) The cheques are numbered in sequence (in order) to help you keep track of the cheques that you write.
- c) Be sure to include the year. A cheque is **stale-dated** after a certain amount of time and can **no longer be cashed—it is not negotiable**. The length of time before a cheque is stale-dated depends on the bank and ranges from three months to one year. Always look at the date when you receive a cheque, too.
- d) Use the whole line for "Pay to the order of". If the name of the person or company you write the cheque to does not use all the space, draw a line through the rest of the space. This prevents anyone from changing what you have written.
- e) Write the amount of the cheque in numbers: \$22.98
- f) Write, in words, the dollars to be paid. Write the cents as a fraction over 100. Be sure to fill unused parts of the space with a straight line.

\$22.98 becomes twenty-two  $\frac{98}{100}$  Dollars.

- g) When you open a bank account, the bank will ask you for a sample signature for their files. Sign exactly as you plan to sign your cheques. Then be sure you always sign your cheques in this way. It is very embarrassing to have your bank refuse to cash your cheque because the signature is wrong.
- h) Your bank account number and codes used at the bank will be printed on your cheque blanks.
- i) A place for details—useful if you want the cheque as a receipt, too. You might list the invoice number for the bill you are paying, for example.

As soon as you write a cheque, be sure to enter it in your debit card/cheque-book record.

➡ Practice cheques or any cheques you do not want cashed should have **VOID** or **SAMPLE ONLY** written on them.

Joe & May Samuel 123 Water St. Oceanview, B.C. 456-789		<u>March 12</u> 19 <u>92</u>	NO. <u>210</u>
PAY TO THE ORDER OF <u>Super Gas</u>		<u>\$ 35.27</u>	
<u>thirty - five</u>		<u>27</u> 100	DOLLARS
A.B.E. Bank 123 Math Drive ABEsville, B.C.	Account # 123-321-456	<b>SAMPLE ONLY</b>	
MEMO <u>gas for Honda</u>		<u>May's signature</u>	

## Exercise Three

Write cheques #48, 49, and 50 from Exercise Two. Use any name and signature you want. Ask your instructor to check your cheques.

Your name		
Your address		
Your phone number	_____ 20 _____	No. _____
PAY TO		
THE ORDER OF	_____	\$ _____
	_____	_____ DOLLARS
		100
ABE Bank		
123 Any Street	Account # 456-789-0	<b><i>SAMPLE ONLY</i></b>
Our Town, BC		
MEMO	_____	_____

Your name		
Your address		
Your phone number	_____ 20 _____	No. _____
PAY TO		
THE ORDER OF	_____	\$ _____
	_____	_____ DOLLARS
		100
ABE Bank		
123 Any Street	Account # 456-789-0	<b><i>SAMPLE ONLY</i></b>
Our Town, BC		
MEMO	_____	_____

Your name		
Your address		
Your phone number	_____ 20 _____	No. _____
PAY TO		
THE ORDER OF	_____	\$ _____
	_____	_____ DOLLARS
		100
ABE Bank		
123 Any Street	Account # 456-789-0	<b><i>SAMPLE ONLY</i></b>
Our Town, BC		
MEMO	_____	_____

A debit card/cheque-book record is a simple accounts book or **ledger**. A ledger is a convenient way to record **expenditures** (money spent) and **income**. Many types of ledger books are available at stationery stores. You might like to look at some of these ledgers and talk to your instructor about their use.

## Exercise Four

A Review. Complete a debit card/cheque record using this information. Arrange the information in chronological order. That means put the information with the earliest date first, then the next date, and so on.

The balance forward is \$312.07

### Withdrawals:

1/5	#122	Mortgage payment	\$375.00
06/5	#123	Cable	\$32.17
23/4		Mike the Mechanic	\$45.82
18/4	#121	B.C. Hydro (Feb & Mar)	\$62.53
2/3		Cash withdrawal	\$75.00
2/3		debit charge	\$1.50
4/5		Grocery Mart	\$111.95

### Deposits:

30/4		Pay	\$596.27
15/4		Separation cheque	\$200.00
20/4		Child Care Tax Refund	\$33.64



DATE	CHEQUE NO.	CHEQUES ISSUED TO OR DESCRIPTION OF DEBIT OR DEPOSIT	DEBIT OR CHEQUE AMOUNT	✓	DEPOSIT AMOUNT	BALANCE
		<b>BALANCE FORWARD</b>				

**B.** Use the cheque blank to write out cheque # 121 from part A. Use any name and address you want. Ask your instructor to check.

Your name \_\_\_\_\_  
 Your address \_\_\_\_\_  
 Your phone number \_\_\_\_\_ 19 \_\_\_\_\_ NO. \_\_\_\_\_

PAY TO THE ORDER OF \_\_\_\_\_ \$ \_\_\_\_\_

A.B.E. Bank  
 123 Math Drive  
 ABESville, B.C.

Account # 123-321-456

100 DOLLARS  
**SAMPLE ONLY**

MEMO \_\_\_\_\_

### Answers to Exercise Four

A.

DATE	CHEQUE NO.	DEBIT OR CHEQUE DESCRIPTION OR DESCRIPTION OF DEPOSIT	CHEQUE AMOUNT		DEPOSIT AMOUNT		BALANCE	
		<b>BALANCE FORWARD</b>					312	07
2/3		Cash Withdrawal	75	00			237	07
2/3		Debit charge	1	50			237	57
15/4		Separation Cheque			200	00	435	57
18/4	121	BC Hydro (Feb & Mar)	62	53			373	04
20/4		Child Care Tax Refund			33	64	406	68
23/4		Sears (fix shocks)	45	82			360	86
30/4		Pay			596	27	957	13
1/5	122	Mortgage Payment	375	00			582	13
4/5		Grocery Mart	111	95			470	18
6/5	123	Cable Vision	32	17			438	01

B.

Your name John Smith  
 Your address 123 – Fourth Street, Anywhere, BC  
 Your phone number 250-123-4567 April 18 20 06 No. 121

PAY TO  
 THE ORDER OF BC Hydro \$ 62.53

-----Sixty-Two----- 53 DOLLARS  
 100

ABE Bank  
 123 Any Street  
 Our Town, BC

Account # 456-789-0 **SAMPLE ONLY**

MEMO Feb. & Mar Payment John Smith

## Unit 2 Review

---

1. Find the Sum:

a.  $4.87 + 3.91 + 0.33 + 5.68 =$

b.  $14.3 + 17.89 + 0.36 + 18.01 =$

c.  $0.187 + 28.27 + 8.039 + 4.44 =$

d.  $5.739 + 7.812 + 9.101 + 3.334 =$

e.  $5.38 + 4.7102 + 24.003 + 0.78 =$

f.  $2.78 + 1.86 + 120 + 18.13 =$

g.  $3.912 + 46 + 72.04 + 19.19 =$

2. Solve the following word problems:

- a. Paolo spent \$4.53 on butter, \$10.97 on a big bag of flour and \$3.50 on eggs. How much did he spend?

- b. A pilot is measuring the weight of the freight and passengers on her next flight. The freight is 800.25 kg and the passengers weigh an approximate 452.5 kg. How much weight is being added to the flight?

- c. Find the perimeter of this long house: 30.7 m long and 12.6 wide.

3. Find the difference:

a.  $82.07 - 14.86 =$

b.  $89.506 - 16.039 =$

c.  $51.31 - 50.99 =$

d.  $17.21 - 3.861 =$

e.  $19.7 - 8.274 =$

f.  $1239 - 74.97 =$

g.  $\$72.53 - \$51.30 =$

h.  $\$7 - \$0.31 =$

4. Solve the following word problems:

- a. Babies often lose a bit of weight in their first few days alive. They then usually go on to grow quite quickly. When Oliver was first born, he weighed 3.36 kg. when he was two days old, he weighed 3.19 kg, how much weight had he lost?
  
  
  
  
  
  
  
  
  
  
- b. George is paid \$478.12 four times a month. Each month he must pay his bills. He has to pay BC Hydro \$52.73, Telus \$68.22 and the landlord \$575.00. How much money does George have left over for his other expenses each month?
  
  
  
  
  
  
  
  
  
  
- c. Jules is installing trim around a doorway. The perimeter of the door is 5.78 m. Jules does not want to buy trim for the base of the doorway. If the base of the doorway measures 0.85 m, how much trim should he purchase?

5. Reading a bank book statement:

Look at the following statement and answer the questions below:

<b>Date</b>	<b>Withdrawal amount /description</b>	<b>Deposit amount /description</b>	<b>Balance</b>
April 20/10	Deposit – gift	200.00	759.58
April 21/10	74.53	Dentist visit	
April 29/10	Deposit – child care tax refund	89.70	
May 01/10	Direct deposit – payroll	609.74	
May 01/10	650.00	Rent	
May 08/10	52.46	Debit – gas station	
May 08/10	1.75	Debit charge	
May 10/10	73.02	Debit – grocery	
May 10/10	1.89	Debit Charge	
May 12/10	60.00	Cash withdrawal	

- Complete the balance column
- How much was the payroll direct deposit? \_\_\_\_\_
- What amount is the child care tax? \_\_\_\_\_
- When was the cash withdrawal made? \_\_\_\_\_
- How much was the gift of money? \_\_\_\_\_
- Why is there a debit charge for the gas station and grocery store purchase?  
(this answer is not in the book, if you don't know the answer, ask a friend, or  
your instructor) \_\_\_\_\_

### Answers to Review

1.
  - a) 14.79      b) 50.56      c) 40.936      d) 25.986      e) 34.8732
  - f) 142.77      g) 141.142
2.
  - a) \$19.00      b) 1252.75 kg      c) 86.6 m
3.
  - a) 67.21      b) 73.467      c) 0.32      d) 13.349      e) 11.426      f) 1164.03
  - g) \$21.23      h) \$6.69
4.
  - a) 0.17 kg or 170 g      b) \$1 216.53      c) 4.93 m
5.
  - a.
    - 685.05
    - 774.75
    - 1384.49
    - 734.49
    - 682.03
    - 680.28
    - 607.26
    - 605.37
    - 545.37
  - b. \$609.74
  - c. \$89.70
  - d. May 12, 2010
  - e. \$200.00
  - f. Because banks charge people for using their debit cards at places other than the bank.

## **Test time!**

Please see your instructor to get  
your practice test.

When you are confident, you can  
write your unit 2 test.

## **Congratulations!**