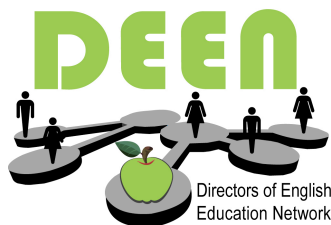


Learning and Evaluation Situation

My Mobile Canteen Small Business

Student Resource





My Mobile Canteen Small Business

Learning and Evaluation Situation

The DEEN (Directors of English Education Network) would like to thank the following school board(s) for the permission to translate and post this Learning and Evaluation Situation (LES) for use in the English schools of Québec:

Commission scolaire de Kamouraska - Rivière-du-Loup

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Translation: Marsha Gouett, English Montreal S.B.

Name: _____

Date: _____

Taxable or Non-taxable

Student Booklet


In general, the Goods and Services Tax (GST 5%) and the Quebec Sales Tax (QST 9.5%) are the taxes that apply to most products and services.

When you buy food items in a grocery store to eat at home, they are generally non-taxable (bread, milk, meat, fruits and vegetables, etc.) However, the following food items are taxable:



- yogurt in a container smaller than 500 ml,
- a salad prepared at the deli counter,
- juice in an individual serving smaller than 600 ml,
- pastries with fewer than six in a package,
- beer and wine,
- etc.
-

Mrs. Martin lives alone and goes to Mr. Smith's mobile canteen several times a week. She is used to buying her muffins from Mr. Smith for \$0.55 each plus tax, but she begins to wonder if she could save money if she bought her muffins at the grocery store in a package of six. Besides, there is a special on muffins at the grocery store this week: \$0.50 each. Since she likes several different kinds of muffins, she thinks that she should take advantage of the special and buy six individual muffins instead of a package of six muffins, all the same kind, for \$3.29.

King's Market	Special \$0.50	
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Analyze the Situation

What would be the best buy for Mrs. Martin this week?

Should she buy her muffins at Mr. Smith's canteen?

Should she buy her muffins at the grocery store individually?

Should she buy her muffins at the grocery store in a package of six?

What I know...

The most important facts

What I want to prove

What I want to find out

Show All Your Work

Don't forget to show
your work neatly and in
the right order.



In the space below, record the conclusions you will communicate to Mrs. Martin based on your calculations.

--

Name: _____

Date: _____

A Question of Profit



Student Booklet

Mr. Smith has owned a mobile canteen for a year. Because he cares about managing his business well, he checks his sales and profits at the end of every month.

In the last quarter (three months) of the year, he noticed an increase in his profits on pre-packaged products (chips, cakes, chocolate, cookies, peanuts, etc.)

Here are the details of his accounting:

MONTH	PURCHASES	SALES
January	\$ 4,550.00	\$ 6,142.50
February	\$ 4,625.00	\$ 6,012.50
March	\$ 4,610.00	\$ 6,085.20
April	\$ 4,630.00	\$ 6,250.00
May	\$ 4,620.00	\$ 6,375.60
June	\$ 5,575.00	\$ 7,526.25
July	\$ 5,600.00	\$ 7,560.00
August	\$ 4,700.00	\$ 6,486.00
September	\$ 4,500.00	\$ 6,075.00
October	\$ 4,550.00	\$ 6,370.00
November	\$ 4,400.00	\$ 6,160.00
December	\$ 4,200.00	\$ 5,880.00

He estimates that his profits on sales for the last quarter of the year are 40%. Is he right?

Analyze the Situation

What I know...

The most important facts

What I want to prove

What I want to find out

Show All Your Work

Don't forget to show
your work neatly and
in the right order.



In the space below, record the conclusions you will communicate to Mr. Smith based on your calculations.

--

Name: _____

Date: _____

Storage Space

Student Booklet



Mr. Smith wants to buy a new truck for his mobile canteen. The one he wants is larger, so it would provide more storage space.

Comparison of the two trucks

Old truck

Length: 2.7 m

Width: 1.8 m

Height: 1.5 m

Compartment space:

1/4 of the space is used for refrigeration

1/6..... display shelves

1/8 the coffee machine

1/3..... storage

1/8.....the cash register and the safe

New truck

Length: 3.7 m

Width: 1.8 m

Height: 1.8 m

Compartment space:

18% of the space is used for the coffee machine

22%..... refrigeration

32% display shelves

20%..... storage

8%..... the cash register and the safe

Mr. Smith thinks that the advantage of buying the new truck is that there is more storage space in the storage compartment. This means he could carry more merchandise with him and wouldn't have to return to his house to stock up his truck. That way, he would spend less on gas and waste less time. He might even sell more.

Is he right?
Prove or disprove his predictions.

Analyze the Situation

What I know...

The most important facts

What I want to prove

What I want to find out

Show All Your Work

Don't forget to show
your work neatly and in
the right order.



In the space below, write the conclusions you will communicate to Mr. Smith based on your calculations.

Name: _____

Date: _____

The Right Choice

Student Booklet



Here are Mr. Smith's coffee sales figures for the last quarter of the year:

October	
Mellow:	65
Strong:	72
Vanilla:	30

November	
Mellow:	52
Strong:	76
Vanilla:	43

December	
Mellow:	41
Strong:	68
Vanilla:	55

Mr. Smith takes a look at his sales figures and wonders if he should keep on selling all three types of coffee.

To help him make his decision, present his sales figures in a bar graph. Don't forget to give him the proof he needs to help him make the right choice.

Analyze the Situation

What I know...

The most important facts

What I want to prove

What I want to find out

Show All Your Work

Don't forget to show
your work neatly and in
the right order.



Justify your answer to Mr. Smith.



Solves a situational problem

Name: _____

Date: _____

My Mobile Canteen Small Business

Student Resource

Team Members:



My Mobile Canteen Small Business



You are very entrepreneurial and decide to go into business. There is a grant available for young people who want to set up a business and take their future into their own hands.

If you want to get this grant, you have to present a short business plan that demonstrates your ability to manage a business.

Your business plan will be submitted to a selection committee who will study it based on the criteria below.

The applicant:

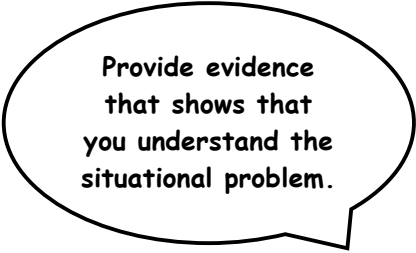
- is between 16 and 21 years of age;
- has never owned a business;
- can give proof of his or her knowledge of mathematics;
- can demonstrate a good understanding of what profit is.

Here are the essential guidelines you must follow in the “Food Products” section of your business plan. You must:

- ❖ Offer foods from the four food groups.
- ❖ Follow a food purchasing budget of \$1,200.000 to start up your canteen,
- ❖ Make a profit of at least 40% on perishable foods and at least 30% on non-perishable foods before taxes,
- ❖ Offer individual-serving foods that do not cost more than \$2.95, tax included.

What I know...

Record the most important facts



Provide evidence
that shows that
you understand the
situational problem.

What I am looking for...

- | | |
|---|--|
| <ul style="list-style-type: none">• I carefully read the task to complete and found the most important facts.• I represented the situational problem using a drawing, table, or an equation. | <ul style="list-style-type: none">• I made sure that there was no missing information.• I identified the mathematical knowledge necessary to solve the problem. |
|---|--|

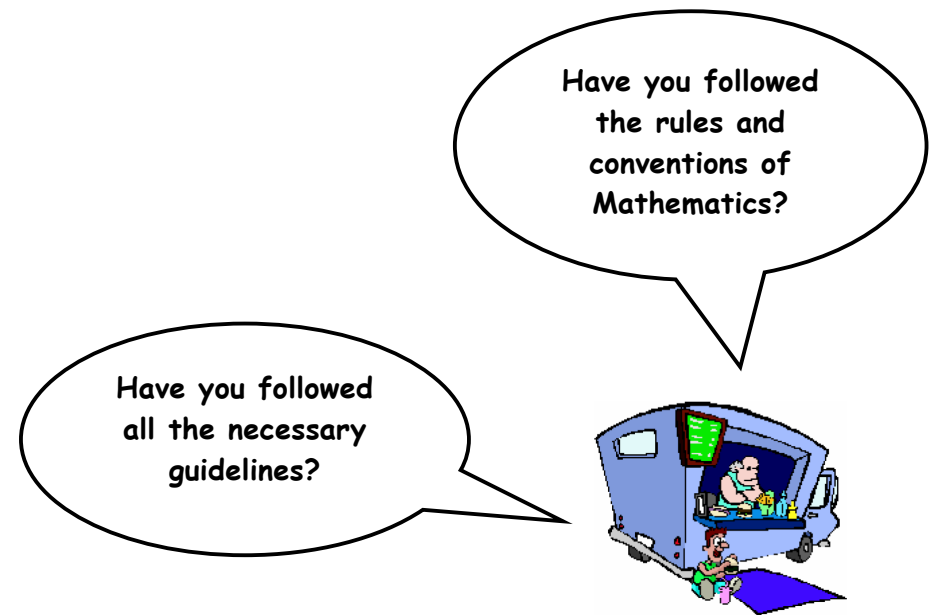
Show All Your Work

Make sure that all
the steps are in
order.



Find a strategy to
help you check and
revise your work.

Show All Your Work (continued)





Present the "Food Products" section of your business plan to the grant selection committee

What was the biggest challenge you faced in solving this situational problem?

List of Wholesale Prices



Chocolate Bars (T.)

Aero X 24	\$16.80
Caramilk X 24	\$16.80
Coffee Crisp X 24.....	\$16.80
Crunch Nestle X 24.....	\$16.80
Dairy milk X 24	\$16.80
Mars X 24	\$16.80
M. Big X 24	\$16.80
Snickers X 24.....	\$15.60
Sweet Marie X 24.....	\$15.60
Wunderbar X 24	\$15.60



Gum (T.)

Chiclets X 12	\$8.16
Dentyne Fire X 12	\$8.40
Dentyne Cool Mint X 12	\$8.40
Trident Berry Delight X 12.....	\$8.40
Trident Strawberry/Kiwi X 12.....	\$8.40
Excel fuse Mint Melon X 12	\$8.40
Excel Sugar-free Mint (green) X 12	\$8.40
Excel Sugar-free Mint (blue) X 12	\$8.40



Snacks (T.)

Pretzels x 24	\$21.00
Bits & Bites X 24.....	\$12.60
Ringolos X 24.....	\$12.60
Christie Cheese Mini Ritz X 24	\$7.80
Popcorn X 12	\$7.15
All-dressed Chips X 40.....	\$18.00
Plain Chips X 40	\$17.37



Granola Bars (T.)

Chocolate Chip X 60	\$10.50
Maples Nut X 60	\$10.50
Peanut Butter X 60.....	\$10.50
Plain X 96.....	\$35.90



Mineral Water and Spring Water 500 ml (T.)

Bel Eau X 100	\$4.99
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Tomato Juice (T.)

Henri 300 ml X 24	\$23.28
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Assorted Ola Fruit Juice 225 ml (T.)

7 Fruit X 30.....	\$11.88
Fieldberry X 30	\$11.88
Tropical Passion X 30	\$11.88
Orange X 30	\$14.10
Apple-Grape X 30	\$14.10

Loft Drinks 591 ml (T.)



Classic Cola X 24	\$7.44
Diet Cola X 24.....	\$7.44
Seven-Up X 24	\$7.44
Orange Crush X 24	\$11.25
Mountain Dew X 24.....	\$11.25
Gatorade (blue) X 12	\$3.30
Gatorade (punch) X 12	\$3.30

Assorted Daddy's Cookie (T.)



Oatmeal Raisin X 24	\$9.15
Double Chocolate X 2.....	\$9.15
Chocolate Nut X 24	\$9.15

Misc. Cheese



Ficello Cheddar X 24.....	\$5.76
Cheese Curds X 12	\$5.40

T. means "Add taxes"



Pastries (T.)

Strawberry Turnovers X 12	\$5.40
Apple Turnovers X 12	\$5.40
Old-fashioned Brownies X 24	\$12.10
Muffins X 12	\$3.30



Beverages

(T. except for milk in small cartons)

Coffee 1 box for 50 cups	\$5.30 *
Tea X 72 bags	\$3.25 *
Hot Chocolate X 50 packets	\$6.25 *
Milk in carton X 24.	\$5.04
Chocolate milk in carton X 24.....	\$7.35
Strawberry Milkshake 250 ml X 12.....	\$7.00

* Add \$0.20 to cover cups, milk and cream, sugar, sweetener and stir-sticks



Fruit (T.)

Apples - Bag of 20.....	\$4.00
Oranges - Bag of 20	\$4.50
Fruit Salad X 25	\$22.50



Nuts 125g or 100g (T.)

Mixed Nuts X 12	\$4.54
Peanuts X 12	\$4.10
Almonds X 12	\$4.82
Sunflower Seeds X 20.....	\$9.00



Yogurt 100g (T.)

Strawberry X 12	\$3.10
Blueberry X 12	\$3.10
Vanilla X 12	\$2.95



Pudding 100g (T.)

Chocolate X 25	\$12.50
Vanilla X 25	\$12.50



Sandwiches (T.)

Egg X 12.....	\$16.20
Ham X 12	\$18.36
Chicken X 12	\$18.36



Submarines (T.)

Vegetarian X 6	\$9.18
Ham X 6	\$9.36
Chicken X 6.....	\$9.36
Beef X 6.....	\$9.36

Souvlakis (T.)

Pork X 6	\$12.67
Chicken X 6.....	\$13.03



Fajitas (T.)

Chicken X 6.....	\$14.22
Beef X 6.....	\$13.50

Pizza Pocket (T.) X 12	\$18.65
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Raw Vegetables (T.) X 4.....	\$6.84
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Green Salad (T.) X 4	\$7.08
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Dried Fruit (T.)

Assorted X 12	\$3.67
Bananas X 12	\$3.53
Apples X 12.....	\$3.53
Raisins X 12	\$3.82
Pears X 12	\$3.82



Ice Cream (T.)

Cup X 24	\$6.77
Fudge X 24	\$6.05
Popsicle X 24.....	\$6.05

Template for calculating taxes by hand

1. Write down the price
2. $\times 0.05$
3. $=$ (round off to the nearest tenth)
4. Starting price + your answer in line 3
5. $=$ (round off to the nearest tenth)
6. $\times 0.095$
7. $=$
8. Answer in line 5 + your answer in line 7
9. $=$

YOU HAVE FOUND THE PRICE WITH TAXES!

Template for calculating taxes using a calculator

1. Enter the price
2. $\times 5\%$
3. $+ =$
4. $\times 9.5\%$
5. $+ =$
6. DO YOU HAVE TO ROUND OFF?

YOU HAVE FOUND THE PRICE WITH TAXES!

Template for converting rational numbers

From a fraction to a decimal

1. numerator \div by denominator
2. =
3. a decimal number

$$\text{e.g.: } 1 \div 4 = 0.25$$

From a decimal number to a percentage

1. the decimal number
2. read it
3. write it as a fraction
4. keep the numerator and add %

$$\text{e.g.: } 0.25 = 25 \text{ one-hundredths} = \frac{25}{100} = 25\%$$