

*Definition of the domain
for summative evaluation*

CMP-5058-1

Microcomputing

Spreadsheets I

Reach for
your **Dreams**

Québec 

*Definition of the domain
for summative evaluation*

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Microcomputing

Spreadsheets I

Formation professionnelle et technique
et formation continue

Direction de la formation générale
des adultes

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1. Introduction

This definition of the domain for summative evaluation describes and classifies the essential and representative elements of the *Microcomputing* program, and, more specifically, for the course entitled *Spreadsheets I*. As such, it gives an overview of the program, but should by no means replace the program itself. The purpose of defining the domain is to ensure that all summative evaluation instruments are consistent with the overall program.

The organization of this definition of the domain is the same as that of those of other courses. The content of each section is, however, specific to this course.

The definition of the domain for summative evaluation is used to prepare examinations that are valid from one version to another, from year to year, and from one school board to another, taking into account the division of responsibilities shared by the Ministère de l'Éducation and the school boards.

2. Program Orientations and Consequences for Summative Evaluation

Orientations

The course *Spreadsheets I* is designed to allow students to acquire the knowledge required to use a spreadsheet without assistance.

The program favours a pragmatic approach, proposing objectives of a practical nature.

The program is designed to allow students to put their microcomputing skills to immediate use, both in general education programs and in everyday life.

The program favours production activities.

The program is based on the most widely used spreadsheet software.

Consequences

The students should be able to use the basic functions required to produce a worksheet without assistance.

The evaluation should consist of tasks designed to verify the students' acquisition of practical microcomputing skills.

The evaluation should consist of tasks related to the students' general education courses and to specific activities of everyday life.

The evaluation may include activities with more than one component.

The examinations should be adaptable to different software programs or be independent of these programs.

3. Course Content for Purposes of Summative Evaluation

Themes

- **Basic components of a worksheet**
 - Entering data in *text* format
 - Entering data in *number* format
 - Column width
 - Replacing cell content
 - Erasing cell contents
 - Modifying the format
- **Mathematical formulas and statistical functions**
 - Mathematical formulas
 - *Sum* function
 - *Average* function
 - *Count* function
 - *Minimum* or *Maximum* function
 - Order of operations
- **Formatting a worksheet**
 - Right or centre alignment
 - *Currency* format
 - *Date* format
 - *Per cent* format
- **Management commands**
 - Saving a file
 - Printing

Skills

- **Applying:** Using a procedure or techniques according to specific rules in order to obtain an expected result.
- **Producing:** Integrating knowledge and several different skills in an appropriate, original and well-organized manner in order to create a complex product.

4. Table of Dimensions

Themes	Basic Components of a Worksheet	Mathematical Formulas and Statistical Functions	Formatting a Worksheet	Management Commands
Skills	30%	40%	20%	10%
Applying 35%	1 Replacing cell contents 5%	4 <i>Average</i> function 5%		
	2 Erasing cell contents 5%	5 <i>Count</i> function 5%		
	3 Modifying the format 5%	6 Order of operations 10%		
Producing 65%	7 Entering data in <i>text</i> format 5%	10 Mathematical formulas 10%	13 Right or centre alignment 5%	17 Saving a file 5%
	8 Entering data in <i>number</i> format 5%	11 <i>Sum</i> function 5%	14 <i>Date</i> format 5%	18 Printing 5%
	9 Column width 5%	12 <i>Minimum</i> or <i>Maximum</i> function 5%	15 <i>Per cent</i> format 5%	
			16 <i>Currency</i> format 5%	

5. Observable Behaviours

General Description

The evaluation tasks should be based on the following list of observable behaviours. A task may combine several dimensions and more than one skill. This is especially the case regarding the skill of *Producing*. Students must complete the tasks within pre-established time limits in order to demonstrate their competency and autonomy in the use of a spreadsheet.

Description of the Dimensions Related to the Skill of *Applying*

Tasks related to this skill have pre-established steps and are designed to show specific skills. The evaluation of task performance is based on the assessment of whether the correct method or procedure was used. The expected result should be identical for each student.

Using a spreadsheet program, students should be able to:

1. Correct the contents of cells using the *Replace* functions.
2. Erase the contents of specified cells.
3. Change the format of a cell containing numbers, from *Number* format to *Text* format, or vice versa.
4. Use the *Average* statistical function for a range of cells in a worksheet.
5. Use the *Count* statistical function for a range of cells in a worksheet.
6. Change a statement into a simple mathematical formula, respecting the order of operations, to achieve a given result.

Description of the Dimensions Related to the Skill of *Producing*

The evaluation of the dimensions related to the skill of *Producing* is focused more on the result than on the method or procedure. Knowing the order in which steps must be performed is part of this skill. The expected result should be different for each student.

Using a spreadsheet program, students should be able to:

7. Enter data in *Text* format.
8. Enter data in *Number* format.
9. Adjust column width on the basis of the contents.
10. Use a mathematical formula to obtain the result of an operation using at least two cells.
11. Use the *Sum* function to obtain the total of a range of cells in a worksheet.
12. Use the *Maximum* or *Minimum* function on a range of cells in a worksheet.
13. Use centre or right alignment in formatting a range of cells containing text.
14. Use the *Date* format correctly in formatting a range of cells in a worksheet.
15. Use the *Percent* format correctly in formatting a range of cells in a worksheet.
16. Use the *Currency* format correctly in formatting a range of cells in a worksheet.
17. Save a worksheet in a file on a diskette.
18. Print a worksheet.

6. Explanation of the Content and Weighting

Weighting of Skills

Given that the objectives of the course are designed to favour the acquisition of knowledge and the development of skills related to the use of a spreadsheet program, summative evaluation should measure two skills:

- the skill of *Applying*, which demonstrates the students' ability to use functions following specific instructions;
- the skill of *Producing*, which demonstrates the students' initiative, creativity and autonomy.

Weighting of Themes

The weighting of the themes corresponds to their importance in the course. Themes are related to the skill of *Applying* or that of *Producing*, depending on the one considered most appropriate.

Overall Weighting

- In terms of skills:
 - *Applying* skill 35%
 - *Producing* skill 65%
- In terms of themes:
 - Basic components of a worksheet 30%
 - Mathematical formulas and statistical functions 40%
 - Formatting a worksheet 20%
 - Management commands 10%

7. Description of the Examination

7.1 Type of Examination

- The summative evaluation consists of a practical examination to be administered at the end of the course.
- Given the time allotted for the examination, elements of the content related to the skill of *Applying* will be evaluated using a worksheet given to the students on diskette.

7.2 Characteristics of the Examination

- The examination comprises one or more tasks.
- The examination is held in one sitting.
- The maximum duration of the examination is 90 minutes.
- It is necessary to use a computer, a spreadsheet program and a printer during the examination.
- Students are not permitted to use the learning guide.
- Students may use the software's Help function. If the software has no Help function, students may consult the manufacturer's manual.
- Students may use a sheet of personal notes (letter format).
- Students must be evaluated on the same software they learned on.
- Students must print their work for each task.
- The examination will be corrected using the printouts and, if necessary, the students' files.

7.3 Pass Mark

The pass mark is set at 60 out of 100.

