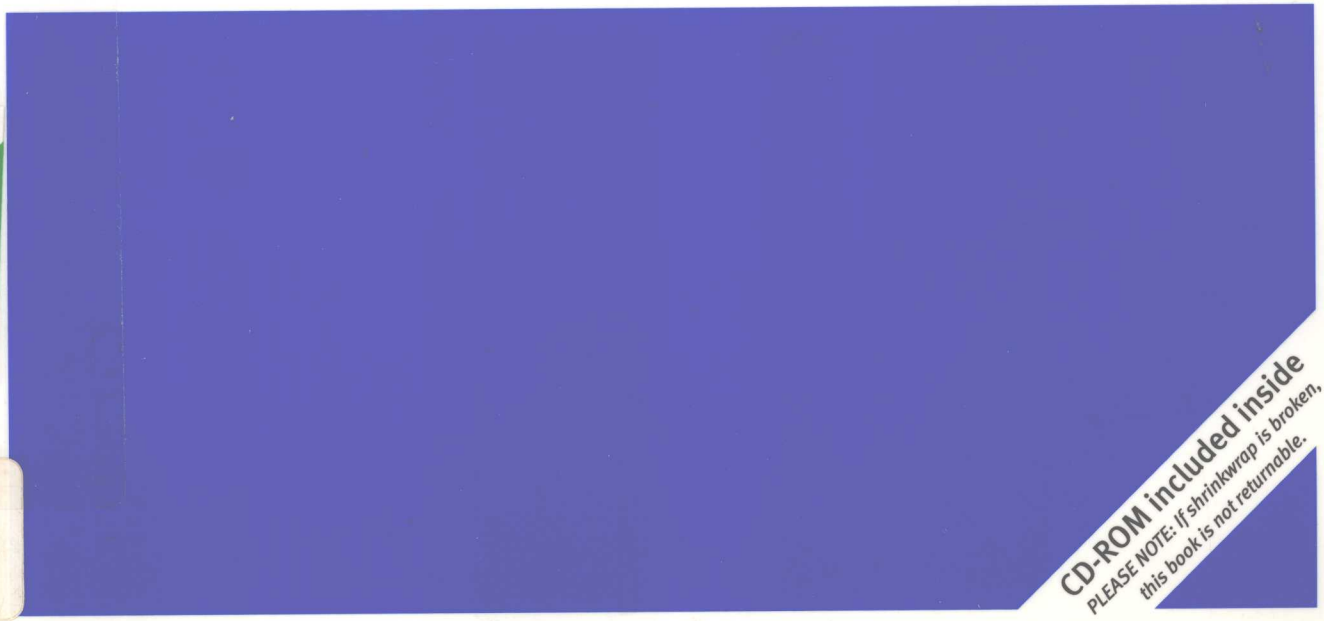
SECOND EDITION

Making Buying Decisions

USING THE COMPUTER AS A TOOL

Richard Clodfelter



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Second Edition

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Preface

This workbook is designed to help you develop a facility with numbers that will help you make better retail buying decisions. Through carefully constructed lessons you will:

- Learn mathematical calculations used by retail buyers.
- Learn fundamental computerized spreadsheet skills.
- Apply mathematical formulas to create useful spreadsheets.
- Develop a portfolio of spreadsheet files useful on the job.

MATH AND COMPUTERS: CRITICAL TOOLS FOR THE MARKETPLACE

Planning for a career in retailing requires that you develop effective merchandising skills, including merchandise knowledge, familiarity with markets and customers, and strong negotiating skills. Fundamental to your success as a professional, however, is your facility with the computations that reflect the profit-driven dimension of business. Mathematical and computational skills are crucial as you develop planning strategies that will provide adequate quantities of merchandise to your customers at prices they are willing to pay.

Too often, merchandising students are not comfortable working with numbers. Many times, the classes that you may have taken stressed only rote memorization of merchandising formulas. But, in today's workplace, merchandisers and buyers are working with numbers in entirely different ways. No longer are they performing tedious and repetitious math calculations. Instead, professionals spend their time reading and interpreting computer printouts as well as constructing and using com-

puterized spreadsheets that will allow them to perform repetitive calculations quickly.

Today, it is almost inconceivable that anyone involved in merchandising does not have daily contact with a computer. Computers have become so affordable and essential that they are being used by small as well as large retailers. By reducing the time needed to perform mathematical calculations, merchandisers and buyers are able to spend more of their time making sounder purchasing decisions that will favorably affect the store's operating efficiency and profitability.

You must also realize that computers cannot solve all your problems. As a planning tool, the computer is only as effective as the person inputting information and instructions. If incorrect data are input into the computer, the results will be incorrect.

Buyers and merchandisers must possess a general knowledge of computers and how to manipulate data, especially through the use of spreadsheets. You probably have already taken a computer course, but did you learn specific applications related to your career objective in retailing? Too often, the answer is no. The exercises in this workbook are designed to incorporate computer training with learning the fundamental mathematical concepts used in merchandising.

USE WITH OTHER TEXTS

This workbook is designed to *supplement* other textbooks in merchandising, retail mathematics, retail buying, and retail management/strategy courses. In the Fairchild series, it could easily be used to more fully develop merchandising concepts presented in *Retail Buying.*

APPROACH AND FORMAT OF THE WORKBOOK

In this workbook, merchandising concepts are presented in a simple, understandable way that minimizes rote memorization of formulas. Activities involve solving merchandising problems by using computerized spreadsheets. You will also observe how less time is needed to perform repetitive calculations; and, by constructing and using spreadsheets for each mathematical operation, you will develop a better understanding of the merchandising concepts being studied.

Mathematical concepts used in merchandising are presented in 11 problem areas. Each one contains the following sections:

- The merchandising concept being presented is reviewed.
- A sample problem with its solution is presented for each concept.
- Problems are included for use with spreadsheets that have already been prepared. These spreadsheets require that you substitute designated variables to answer "what if?" The purpose of these problems is to show you the ease with which mathematical calculations can be made using the computer.
- Additional assignments are presented for you to use with spreadsheets that *you design*. For problems in the first several chapters, a step-by-step process will be detailed for constructing the spreadsheet. For later chapters, you will have the opportunity to design the entire spreadsheet based on the problems presented.
- The **Glossary** and **Appendix** serve as ready reference tools as you complete the projects in this book.

Upon completing the exercises and assignments in this workbook, you should have a more genuine understanding of mathematical concepts used in merchandising as well as increased familiarity with computer operations. Above all, once you have completed this workbook you will have a disk filled with spreadsheet applications that you can carry with you into your retailing career upon graduation.

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MAKING BUYING DECISIONS

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Chapter 1

Using Computerized Spreadsheets

In this workbook you will be performing mathematical calculations using a computerized ***spreadsheet***, an electronic worksheet. A *Merchandising Compact Disk (CD)* accompanies this workbook and contains many spreadsheets that have already been prepared with *Microsoft Excel*. You will use the files on this CD to solve problems in the workbook. You will also design and construct your own spreadsheets and store them on the disk.

Spreadsheets can be used to perform a simple operation such as adding two numbers, or calculations can involve hundreds of interrelated entries. More significant than performing mathematical calculations on spreadsheets, you can quickly make recalculations by changing one or several of the numbers that you have entered or by changing formulas. Using the speed of computers, spreadsheet programs allow you to make repetitive and tedious mathematical calculations quickly and efficiently.

A spreadsheet can be thought of as a long, rectangular sheet of paper divided into smaller rectangles, called ***cells***. You can type words or numbers in these rectangles, or you can type formulas that can add, subtract, multiply, or divide numbers in whatever combination you choose.

Spreadsheets are invaluable tools for retail buyers and managers when they are developing "what if" strategies. For example, after formulas have been set up, you may want to enter one set of numbers to estimate sales. Just as quickly, you can enter another set of numbers to estimate sales for a different scenario. You could keep doing this for

as many sets of numbers as you desire. Performing repetitive mathematical calculations and "what if" analyses are what spreadsheets do best.

BASIC COMPUTER OPERATIONS

Now you should be ready to see what a spreadsheet looks like on the computer. Follow the instructions listed below to load the spreadsheet program, select the data drive, and open a file.

Loading Files from the *Merchandising CD*

1. Start your computer.
2. Insert the *Merchandising CD* into your CD-ROM.
3. Open *Microsoft Excel* on your computer and use the **File** menu to open drive D.
4. A directory of the *Merchandising CD* appears as shown in Figure 1.1. Notice that files are titled by lesson for easy reference.

Opening a File

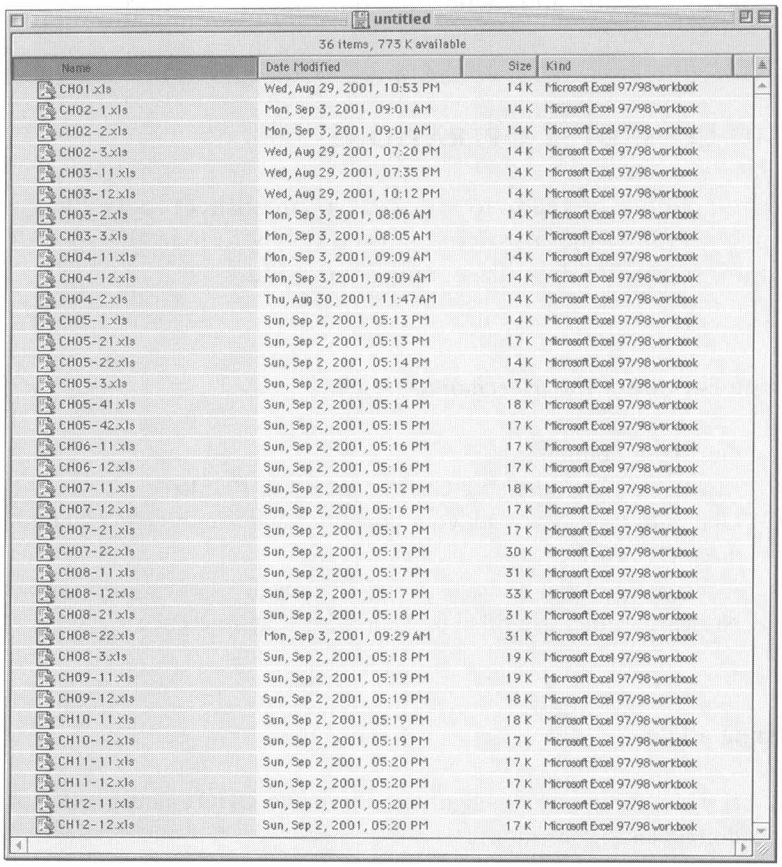
1. Use the mouse to highlight the file name **CHO1** and press **Open** or double-click your mouse.
2. You should now be able to see a part of the spreadsheet on your computer screen as shown in Figure 1.2.

Reading the Spreadsheet Screen

On the spreadsheet the ***highlight bar*** identifies the current cell. You will also notice letters across the top of the screen. They identify a vertical series of cells in a ***column***. Numbers can be seen on the left side of your computer screen. They are used to identify horizontal series of cells in a ***row***. Spreadsheet programs usually contain more rows and columns than you will need in your calculations.

Each cell on the spreadsheet also has an address that is shown on the status line of the screen. The ***cell address*** is determined by its column and row location. For example, the cell in the upper left corner

FIGURE 1.1

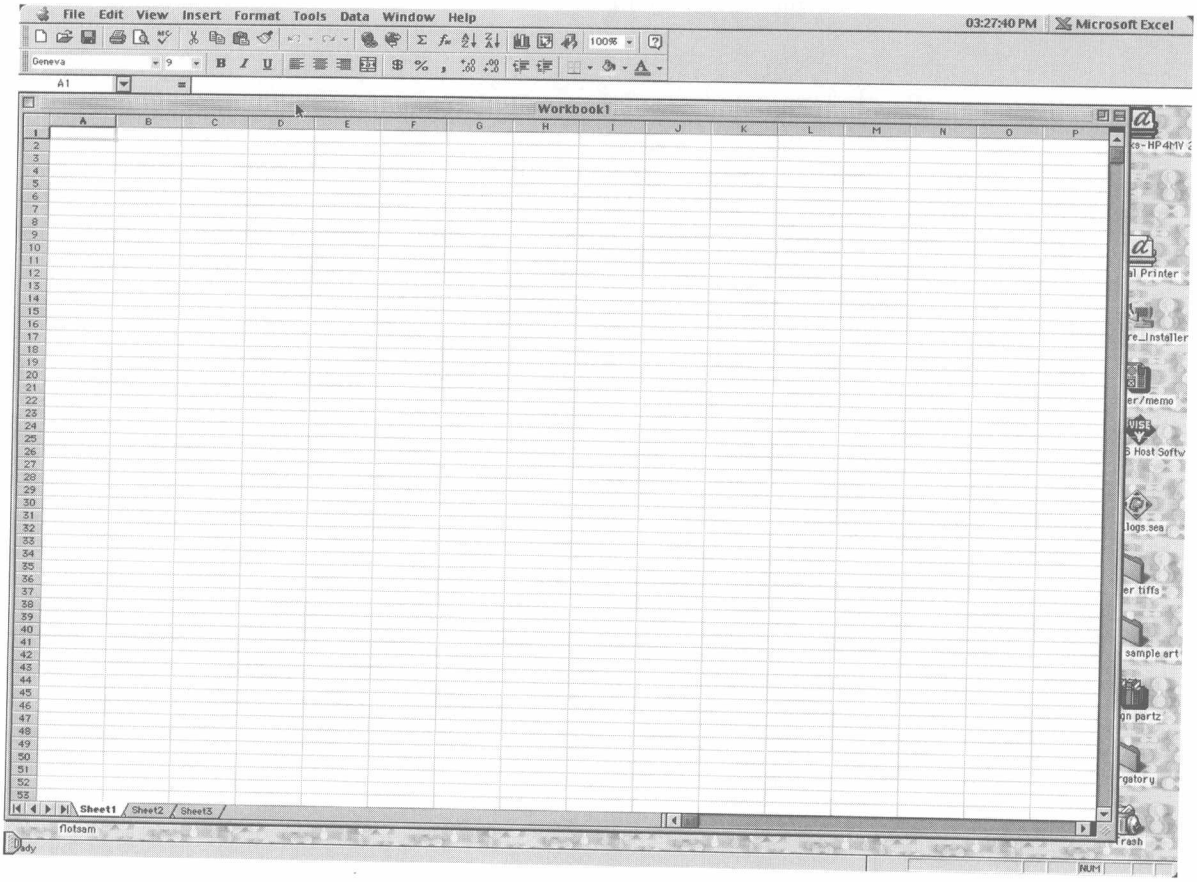


of the spreadsheet has an address of A1. The cell is located in column A, row 1. You can move to other cells in the spreadsheet by using the mouse.

Both text and numbers can be entered into a cell, but with numbers you must designate how you want your data presented (e.g., number of decimal places, currency). Using the **Format** command on the menu will allow you to change how numbers are displayed in any cell, row, or column.

You must follow mathematical rules as you work with spreadsheets. Formulas are calculated in normal mathematical order. *Operations inside parentheses are performed first, followed by multiplication, division, addition, and then subtraction.*

FIGURE 1.2



Changing the Width of a Column

If, after performing any calculation, the symbol "#####" appears, the cell is not large enough to display the data; but you can easily enlarge the column to accommodate the data. The width of the column in which data are to be entered or displayed can also be made smaller, if desired.

To change the width of a column:

1. With your mouse move your cursor to the top of the spreadsheet where columns are identified as A, B, C, and so on. With the cursor, highlight the line to the right of the column that you wish to adjust. The cursor changes appearance when it is positioned correctly.

2. Hold down your mouse button. Drag the mouse to make the column the correct width.

Changing How Numbers Are Displayed

You can also use commands under the **Format** menu to designate how data in a specific cell, row, or column are to be presented. You can display the data as whole numbers, dollars (currency), or decimals. You can also designate how many decimal places you wish to use.

To change how values are displayed:

1. Highlight the cell you wish to change, or highlight the cells in the row(s) or column(s) you wish to change.
2. Use commands listed under the **Format** menu to change how your data will be presented.

Entering Formulas

Formulas calculate a value based on the values in other cells of the spreadsheet. In fact, a formula can include any cell on the spreadsheet. You can also combine mathematical operations–for example, A1 + (A2 − A3)/A4. Remember that *before any formula can be entered, the "=" sign must be typed first.*

To enter a formula:

1. Click the cell where the result of the formula will appear.
2. Type the "=" sign. Now type the formula. For example, if you want to add the values in cells A1, A2, and A3, type **A1 + A2 + A3** after the "=" sign. You could also click the cell of the value that you are adding. For the formula presented, you could click cell A1, then type the "+" sign, then click cell A2 and type "+", and finally click cell A3.
3. When you have finished entering a formula, press **ENTER,** which indicates to the computer that you have completed your formula.
4. Your results will appear in the cell where you entered the formula if data were in the other cells.

Functions, abbreviated formulas that perform a specific operation on a group of values, can also be used to save time. For example, the **SUM** function is a shortcut for entering a formula that adds numbers.