## PART 5

USING SPREADSHEET SOFTWARE

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Learning Objectives
After completing Part 5, you will
\(\checkmark\) Comprehend how spreadsheets are used in the business office, and their importance.
\(\checkmark\) Be familiar with the process of creating spreadsheets.
\(\checkmark\) Enter data into a spreadsheet.
\(\checkmark\) Create a Business Statement report from spreadsheet data.
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NOTE: Students must have access to Microsoft Excel or other spreadsheet software. Additionally, to complete the spreadsheet exercises, students must be proficient in creating a basic spreadsheet or they may download the student spreadsheet template for each practice job from www.mhhe.com/slater8e.

For many years people used calculators and adding machines to perform numerical calculations, however, with recent innovations in computer technology and spreadsheet software, these manual tools have become virtually obsolete. The ease with which spreadsheet software can calculate and manipulate volumes of numerical data makes managerial decision making more timely and effective.

For example, when using a balance sheet set up on a spreadsheet, if one number is changed, all affected totals are automatically changed throughout the spreadsheet.
A spreadsheet contains horizontal rows and vertical columns. Columns are labeled with letters; rows are numbered. The intersection of a row and a column is called a cell. Cell locations are identified as "cell addresses"; a column letter and a row number identify the corresponding cell address. Cells may contain labels (alphanumeric characters), numerical values, or formulas. For example Cell A1 is labeled Temporary Employees, B1 is labeled Permanent Employees, C1 is labeled Total Employees. Cell A2 and B2 have numerical; values and cell C2 has a formula that adds Cell A2 and B2.

The exercises that follow allow you to practice using the computer number pad to enter data with speed and accuracy. They also provide an opportunity to practice creating spreadsheets.


## Spreadsheet Exercise 1

Create a Budget Spreadsheet and Input Data.

## Instructions

1. Start the Window Excel Program.
2. For this exercise you will have to create a Budget Expense Spreadsheet.

The data and labels for the spreadsheet are shown below.
3. The formulas required to have the spreadsheet automatically tabulate the data are:
\% Of Total Expense = (Amount/ Total Monthly Expense) * 100
Total Monthly Expense $=$ Use the $\Sigma$ key to tabulate Total Monthly Expense.
4. The Total Monthly Expense is $\$$ $\qquad$ .
5. Print a copy of the spreadsheet and save as the file BUDGET, to a diskette.

$$
\text { Expense Amount } \quad \text { \% of Total Expense }
$$

| House Mortgage | $\$$ | $1,200.00$ |
| :--- | ---: | ---: |
| Gas | $\$$ | 70.00 |
| Car note | $\$$ | 325.00 |
| Car Insurance | $\$$ | 100.00 |
| Credit Card | $\$$ | 500.00 |
| Food and Living | $\$$ | 500.00 |

## Total Monthly Expenses

TIP: After typing the first value in the amount column, do not press enter. Use your thumb to press the down arrow to move to the next cell. In the Amount column,
*The template is listed as Exercisel on the Website.

## Special Feature:

Once data has been entered into a spreadsheet, a graph of the data may be displayed.
Bar, line, and pie graphs are examples of the graphs that may be generated from the inputted data.

The following is an example of a Pie Chart that could be generated from the spreadsheet data.

## Percent of Monthly Expense



House
Mortgage
Gas
$\square$ Car note
$\square$ Car Insurance
Credit Card
$\square$ Food and Living

## Spreadsheet Exercise 2 Input Data to find Total Inventory Cost.

## Instructions:

1. Start Windows Excel program.
2. For this exercise, you will have to create an Inventory Spreadsheet.

3 The data and labels are shown below. Use the following formulas to tabulate the data:
Total Item Cost
$=$
(Unit Cost * Quantity)
Total Inventory Cost $\quad=\quad \sum$ of the Item Costs

4 Print a copy of the spreadsheet and save the file as inventory to a diskette.
5 Your objective is to ensure accurate and complete data entry.
*The template is listed as Exercice2 on the Website.

| Fporting Goods Store <br> First Quarter <br> Inventory      <br> Danuary 2011      |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Bascription | Product \# | Vendor \# | Unit Cost | Qty. | Total Cost |
| Baseball Jersey (Small) | 99504 | 22154 | $\$ 10.25$ | 30 |  |
| Baseball Jersey (Large) | 99499 | 22154 | $\$ 13.25$ | 22 |  |
| Baseball Pants (Small) | 99498 | 22154 | $\$ 11.95$ | 28 |  |
| Baseball Pants (Medium) | 99527 | 22154 | $\$ 13.99$ | 40 |  |
| Baseball Pants (Large) | 99521 | 22154 | $\$ 15.50$ | 32 |  |
| Baseball Glove (Children) | 97789 | 22154 | $\$ 28.90$ | 15 |  |
| Baseball Glove (Adult) | 86791 | 22154 | $\$ 38.95$ | 22 |  |
| Baseball Bat (Std.) | 86789 | 22154 | $\$ 35.75$ | 15 |  |
| Baseball Bat (Steel) | 86796 | 22154 | $\$ 48.25$ | 29 |  |
| Baseball | 86793 | 22154 | $\$ 22.99$ | 48 |  |
| Softball | 86795 | 22154 | $\$ 18.15$ | 39 |  |
| Football | 41232 | 25190 | $\$ 29.80$ | 50 |  |
| Football Pads | 41235 | 25190 | $\$ 54.45$ | 43 |  |
| Football Jersey | 41238 | 25190 | $\$ 15.50$ | 55 |  |
| Football Helmets | 41239 | 25190 | $\$ 52.90$ | 43 |  |
| Knee pads | 41234 | 25190 | $\$ 25.50$ | 120 |  |
| Basketballs | 41233 | 10541 | $\$ 32.00$ | 53 |  |
| Backboard and Hoop | 70015 | 10541 | $\$ 109.50$ | 19 |  |
| Hockey Stick | 70020 | 10009 | $\$ 38.90$ | 21 |  |
| Soccer Ball | 70030 | 11154 | $\$ 28.25$ | 32 |  |


| Sporting Goods Store <br> First Quarter <br> Inventory <br> January 2011 |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | Product \# | Vendor \# | Unit Cost | Qty. | Total Cost |  |  |  |
| Tennis Rackets | 55723 | 12383 | $\$ 48.99$ | 19 |  |  |  |  |
| Tennis Balls | 55725 | 12383 | $\$ 12.00$ | 49 |  |  |  |  |
| Calloway Golf Clubs | 55177 | 27474 | $\$ 899.00$ | 12 |  |  |  |  |
| Cleveland Golf Clubs | 55092 | 27474 | $\$ 689.00$ | 8 |  |  |  |  |
| Taylor Made Golf Clubs | 68545 | 27474 | $\$ 799.00$ | 11 |  |  |  |  |
| Topflight Golf Balls | 68157 | 27474 | $\$ 25.00$ | 70 |  |  |  |  |
| Hogan Golf Balls | 60001 | 27474 | $\$ 22.00$ | 50 |  |  |  |  |
| Putter | 60017 | 27474 | $\$ 89.90$ | 12 |  |  |  |  |
| Sand wedge 55 degree loft | 60025 | 27474 | $\$ 61.75$ | 5 |  |  |  |  |
| Sand wedge 60 degree loft | 60035 | 27474 | $\$ 70.25$ | 13 |  |  |  |  |
| Golf Bag | 60036 | 27474 | $\$ 119.00$ | 16 |  |  |  |  |
| Fishing Rod | 60098 | 11567 | $\$ 43.50$ | 25 |  |  |  |  |
| Tackle Box | 36019 | 11567 | $\$ 19.99$ | 19 |  |  |  |  |
| Bass Lure | 36022 | 11567 | $\$ 8.99$ | 31 |  |  |  |  |
| Bowling Ball | 36054 | 22221 | $\$ 82.75$ | 21 |  |  |  |  |
| Bowling Bag | 36099 | 22221 | $\$ 28.50$ | 22 |  |  |  |  |
|  |  | TOTAL INVENTORY |  |  |  |  |  |  |
|  | COST |  |  |  |  |  |  |  |

6. The Total Inventory Cost is $\$$ $\qquad$ .

## Spreadsheet Exercise 3

## Input Travel Expense Data to a Travel Expense Report

## Instructions

1. Start the Windows Excel program.

This exercise will require you to create a Travel Expense Report Spreadsheet.
2. The data for the Travel Expense Report is shown below for the week of April $26^{\text {th }}$. The following formula should be used to automatically calculate the Expense Reimbursement.

| Total | $=$ | $\sum$ of each expense in that row. <br> Total Meals |
| :--- | :--- | :--- |
| the |  |  |$\quad$| $\sum$ of the Breakfast, Lunch and Dinner column; then $\Sigma$ |
| :--- |
| total meal expense for that row into the total column. |


| Travel Expense Report <br> Name: <br> Harry Hemphill |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Category | $\begin{gathered} \hline \text { Monday } \\ \text { 26-Apr-11 } \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Tuesday } \\ \text { 27-Apr-11 } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Wednesday } \\ \text { 28-Apr-11 } \\ \hline \end{array}$ | Thursday 29-Apr-11 | $\begin{gathered} \text { Friday } \\ 30-A p r-11 \end{gathered}$ | Saturday <br> 1-May-11 | $\begin{array}{\|c\|} \hline \text { Sunday } \\ \text { 2-May-11 } \end{array}$ | Total |
| Lodging | \$ 80.85 | \$ 80.85 | \$ 80.85 | \$ 80.85 | \$ 80.85 |  |  | \$ |
| Meals |  |  |  |  |  |  |  |  |
| Breakfast | \$ 13.00 | \$ 12.00 | \$ 11.25 | \$ 12.75 | \$ 11.50 |  |  |  |
| Lunch | \$ 8.99 | \$ 9.25 | \$ 10.00 | \$ 11.00 | \$ 11.75 |  |  |  |
| Dinner | \$ 32.00 | \$ 24.00 | \$ 22.00 | \$ 26.00 | \$ 29.00 |  |  |  |
| Total Meals | \$ 53.99 | \$ 45.25 | \$ 43.25 | \$ 49.75 | \$ 52.25 |  | \$ | \$ |
| Auto Rental | \$ 51.00 | \$ 51.00 | \$ 51.00 | \$ 51.00 | \$ 51.00 |  |  | \$ |
| Telephone |  | \$ 8.56 |  | \$ 9.25 |  |  |  | \$ |
| Parking |  |  |  |  |  |  |  | \$ |
| Entertainme nt |  |  |  |  |  |  |  | \$ |
| Misc. |  |  |  |  |  |  |  | \$ |
|  |  |  |  | TOTAL EXPENSE REIMBURSEMENT |  |  |  | \$ |

3. Print a copy of the Travel Expense Report and save the file as Travel to a diskette.
4. The Total Expense Reimbursement \$ $\qquad$ .
*The template is listed as Exercice3 on the Website.

Spreadsheet Exercise 4

## Create a Business Statement Report

Instructions:

1. Start Windows Excel Program.
2. For this exercise you will have to create the following Business Statement Report.
3. The data and labels required to create the spreadsheet are shown below.
4. Print a copy of the Business Statement and save the file as Statement to a diskette.

|  | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 2}$ | $\mathbf{2 0 1 3}$ |
| :--- | :---: | :---: | :---: |
| Annual Income | $\$ 800,000.00$ | $\$ 900,000.00$ | $\$ 1,000,000.00$ |
| Expense | $\$ 350,000.00$ | $\$ 400,000.00$ | $\$ 475,000.00$ |
| Net Profit | $\$ 450,000.00$ | $\$ 500,000.00$ | $\$ 525,000.00$ |

*The template is listed as Exercise 4 on the website.

## Special Feature:

Data from a spreadsheet can quickly be formatted into a Bar Chart as shown below.


## Spreadsheet Exercise 5

Input Payroll Data to a Payroll Register Report

## Instructions

1. Start the Windows Excel program.

This exercise will require you to create a Payroll Register Report Spreadsheet.
2. The data to create the payroll spreadsheet may be entered from Part 3, page 52. This job was completed and all information has been obtained. Or you may choose to set up your spreadsheet with formulas to assist you in calculating the final payroll expense. You will experience the ability to complete the payroll at three times the speed of the electronic calculator hand calculations.

The following formulas will assist you in completing the payroll exercise.

| Soc Sec No. | Rates | Hours |  |  | Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Regular | Overtime | Total | Regular | Overtime | Total |
| given | given | given | given | ? | ? | ? | $?$ |

Total Hours $\quad=\quad$ (Regular hours + Overtime hours)
Regular Earnings $=$ (Rates * Regular Hours)
Overtime Earnings $=$ [(Rates * 1.5) *(Overtime Hours)]
Total Earnings $=$ (Regular Earnings +Overtime Earnings)

## Total Payroll Expense $=\quad \sum$ of Total Earnings Column.

3. The Total Pay Expense $=\$$
4. Print a copy of the Payroll Register Report and save the file as Payroll to a diskette.
*The template is listed as Exercice5 on the Website.

## PAYROLL REGISTER TEMPORARY EMPLOYESS

Pay Period Ending: 4-30-2007

| Soc Sec No. | Rates | Hours |  |  | Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Regular | Overtime | Total | Regular | Overtime | Total |
| 274-74-3700 | \$ 10.00 | 40 |  |  |  |  |  |
| 282-74-4968 | \$ 10.00 | 40 | 5 |  |  |  |  |
| 273-69-4256 | \$ 7.00 | 35 |  |  |  |  |  |
| 600-45-3117 | \$ 7.00 | 37.75 |  |  |  |  |  |
| 305-20-8129 | \$ 7.00 | 38 |  |  |  |  |  |
| 300-84-7254 | \$ 8.50 | 20 | 3 |  |  |  |  |
| 427-39-3663 | \$ 8.50 | 30 |  |  |  |  |  |
| 600-47-5106 | \$ 8.50 | 40 | 6 |  |  |  |  |
| 725-69-6491 | \$ 8.50 | 40 | 8 |  |  |  |  |
| 200-20-2020 | \$ 8.50 | 35 |  |  |  |  |  |
| 406-64-3591 | \$ 7.75 | 39 |  |  |  |  |  |
| 927-76-8461 | \$ 6.95 | 38.25 |  |  |  |  |  |
| 654-65-6229 | \$ 8.00 | 38.25 |  |  |  |  |  |
| 305-54-5047 | \$ 9.00 | 40 | 4.3 |  |  |  |  |
| 280-13-4836 | \$ 9.00 | 40 | 6.5 |  |  |  |  |
| 610-22-2629 | \$ 9.25 | 40 | 8.95 |  |  |  |  |
| 620-31-3451 | \$ 9.25 | 40 |  |  |  |  |  |
| 625-40-6252 | \$ 9.25 | 40 |  |  |  |  |  |
| 600-89-9100 | \$ 9.50 | 40 | 12 |  |  |  |  |
| 605-71-1181 | \$ 9.50 | 40 | 15 |  |  |  |  |
| 269-68-4716 | \$ 8.10 | 40 | 5 |  |  |  |  |
| 452-64-5201 | \$ 7.00 | 30 |  |  |  |  |  |
| 300-58-9269 | \$ 7.50 | 40 | 10 |  |  |  |  |
| 471-05-5800 | \$ 8.50 | 40 | 2.25 |  |  |  |  |
| 906-25-7101 | \$ 9.00 | 40 | 5 |  |  |  |  |
| 320-52-3769 | \$ 8.00 | 38.75 |  |  |  |  |  |
| 501-50-4020 | \$ 7.00 | 38.75 |  |  |  |  |  |
| 696-32-4644 | \$ 8.10 | 40 | 10 |  |  |  |  |
| 211-64-3939 | \$ 7.50 | 39 |  |  |  |  |  |
| 322-22-2332 | \$ 9.50 | 35 |  |  |  |  |  |
| 451-49-6672 | \$ 10.00 | 35 |  |  |  |  |  |
| 100-66-9952 | \$ 9.00 | 40 | 6 |  |  |  |  |
| 321-65-9874 | \$ 9.25 | 40 | 4.25 |  |  |  |  |
| 789-23-7413 | \$ 7.00 | 40 | 4.75 |  |  |  |  |
| 100-64-4126 | \$ 7.50 | 40 | 5.25 |  |  |  |  |
| 105-21-7843 | \$ 7.75 | 40 |  |  |  |  |  |
| 665-27-7000 | \$ 7.75 | 38.75 |  |  |  |  |  |
| 332-45-6679 | \$ 8.25 | 39.25 |  |  |  |  |  |
| 608-29-4791 | \$ 8.50 | 40 | 3 |  |  |  |  |
| 202-26-4165 | \$ 9.50 | 40 | 6 |  |  |  |  |
|  |  | Total Payroll Expense |  |  |  |  |  |

## CLASSROOM NOTES



## CLASSROOM NOTES



## CLASSROOM NOTES



## CLASSROOM NOTES



