

Financial Applications

This chapter looks at some of the ways banks make use of spreadsheets. It will include an electronic cheque book, a home loan simulator and a calculation of compound interest.

An Electronic Cheque Book

A spreadsheet can be used to allow a person to keep an accurate record of their financial dealings.

A Opening the Prepared Template

- 1 Load Microsoft Excel or close the current file.
- 2 Display the FILE menu and select OPEN. Access the CHAPTER 16 folder of the EXCEL 2008 SUPPORT FILES and load the file:

Cheque Book

Selecting YES to the READ-ONLY dialogue box.

B Completing the Formulas

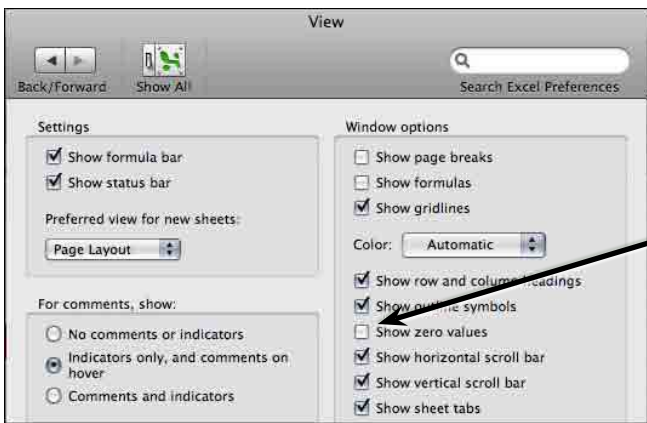
We need a formula that looks to see whether a deposit or withdrawal has been entered. If either has, then the deposit must be added to the balance or the withdrawal subtracted from the balance.

The screenshot shows the Excel interface with the following data in the spreadsheet:

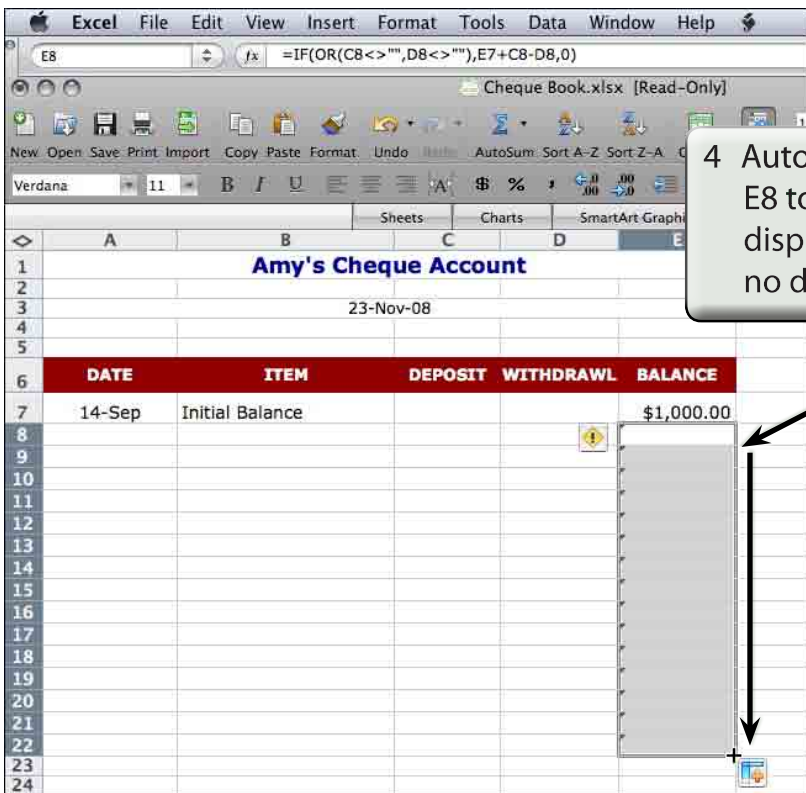
DATE	ITEM	DEPOSIT	WITHDRAWL	BALANCE
14-Sep	Initial Balance			\$1,000.00
				\$0.00

NOTE: This formula says: "If either a deposit is entered in this row, OR a withdrawal is entered in this row, then display the previous balance (one row up) plus the deposit in this row minus the withdrawal in this row, otherwise display zero."

- 2 Zero values need to be turned off. Display the EXCEL menu, select PREFERENCES and click on the VIEW icon.



3 In the WINDOW OPTIONS section of the VIEW dialogue box turn off SHOW ZERO VALUES and select OK.



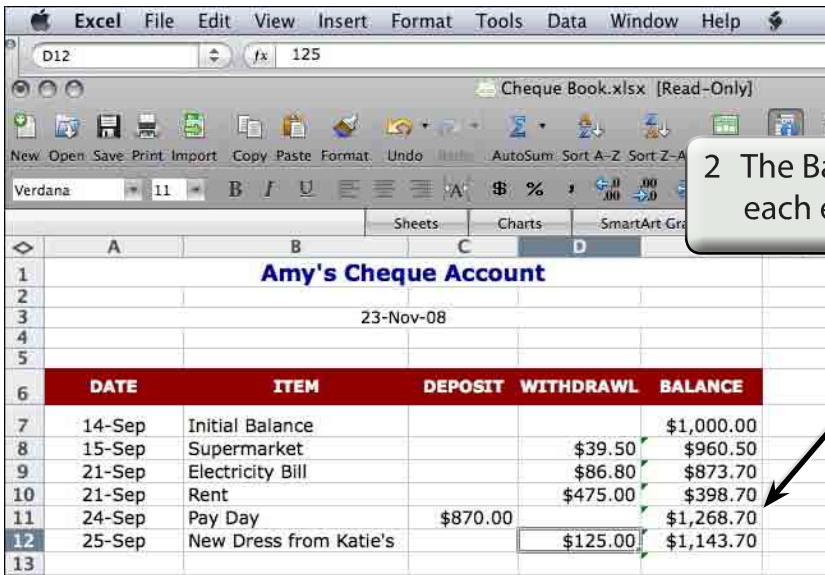
4 Autofill the formula down from cell E8 to cell E22. There will be nothing displayed at this stage as there are no deposits or withdrawals.

C Using the Cheque Book

Now you are ready to use the cheque account.

- 1 Enter the following labels and values into your worksheet (there is 1 deposit and 4 withdrawals):

Date	Item	Deposit	Withdrawal
15 Sep	Supermarket		\$39.50
21 Sep	Electricity Bill		\$86.80
21 Sep	Rent		\$475.00
24 Sep	Pay Day	\$870.00	
25 Sep	New dress from Katie's		\$125.00



2 The Balance should adjust after each entry.

- 3 Try adding some more withdrawals and deposits of your own.
- 4 Save your workbook and print a copy if you wish.

The Home Loan Simulator

Many banks have home loan tables set up so that prospective borrowers can be shown what their repayments will be. We can use Microsoft Excel to set up a loan simulator of our own. Such tables are called LOAN AMORTIZATION tables. For simplicity we will just create a table for monthly repayments.

A Opening the Prepared Template

- 1 Close the current file and select OPEN from the FILE menu.
- 2 Access the CHAPTER 16 folder of the EXCEL 2008 SUPPORT FILES and load the file:
Home Loan

Selecting YES to the READ-ONLY dialogue box.

B Entering the Initial Values

The values in the PRINCIPAL, INTEREST RATE and YEARS OF LOAN section control the spreadsheet. They are the only values that need to be entered and the table will be set up so that when different values are entered the table automatically adjusts.

1 Move the cursor to cell C4 and enter: \$10000

2 In cell C5 enter: 7% and in cell C6 enter: 2

MONTH	START BALANCE	END BALANCE	MONTHLY PAYMENT	PRI REMAINING PAID

NOTE: For simplicity we will use a 2-year loan. Normally a home loan would be for a much higher Principal than this and be paid over many more years.