

Excel® 2016 Formulas

Michael Alexander
Dick Kusleika



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Contents at a Glance

Introduction	xxvii
--------------------	-------

Part I: Understanding Formula Basics

Chapter 1: The Excel User Interface in a Nutshell	3
Chapter 2: Basic Facts About Formulas	19
Chapter 3: Working with Names	45

Part II: Leveraging Excel Functions

Chapter 4: Introducing Worksheet Functions	85
Chapter 5: Manipulating Text	99
Chapter 6: Working with Dates and Times	125
Chapter 7: Counting and Summing Techniques	163
Chapter 8: Using Lookup Functions	195
Chapter 9: Working with Tables and Lists	219
Chapter 10: Miscellaneous Calculations	257

Part III: Financial Formulas

Chapter 11: Borrowing and Investing Formulas	279
Chapter 12: Discounting and Depreciation Formulas	299
Chapter 13: Financial Schedules	317

Part IV: Array Formulas

Chapter 14: Introducing Arrays	341
Chapter 15: Performing Magic with Array Formulas	365

Part V: Miscellaneous Formula Techniques

Chapter 16: Importing and Cleaning Data	393
Chapter 17: Charting Techniques	425
Chapter 18: Pivot Tables	469
Chapter 19: Conditional Formatting	521
Chapter 20: Using Data Validation	547
Chapter 21: Creating Megaformulas	561
Chapter 22: Tools and Methods for Debugging Formulas	581

Part VI: Developing Custom Worksheet Functions

Chapter 23: Introducing VBA	607
Chapter 24: VBA Programming Concepts	627
Chapter 25: Function Procedure Basics	659
Chapter 26: VBA Custom Function Examples	679



Part VII: Appendixes

Appendix A: Excel Function Reference 725

Appendix B: Using Custom Number Formats 743

Index 763

Table of Contents

Introduction	xxvii
--------------------	-------

Part I: Understanding Formula Basics

Chapter 1: The Excel User Interface in a Nutshell	3
The Workings of Workbooks	3
Worksheets	4
Chart sheets	5
Macro sheets and dialog sheets	5
The Excel User Interface	5
The Ribbon	6
Backstage View	7
Shortcut menus and the mini toolbar	7
Dialog boxes	7
Customizing the UI	8
Task panes	9
Customizing onscreen display	9
Numeric formatting	9
Stylistic formatting	9
Protection Options	10
Securing access to the entire workbook	10
Limiting access to specific worksheet ranges	13
Protecting the workbook structure	16
Chapter 2: Basic Facts About Formulas	19
Entering and Editing Formulas	19
Formula elements	20
Entering a formula	20
Pasting names	22
Spaces and line breaks	22
Formula limits	23
Sample formulas	23
Editing formulas	24
Using Operators in Formulas	25
Reference operators	25
Sample formulas that use operators	26
Operator precedence	27
Nested parentheses	29
Calculating Formulas	30
Cell and Range References	30
Creating an absolute or a mixed reference	31
Referencing other sheets or workbooks	33

Copying or Moving Formulas	35
Making an Exact Copy of a Formula	36
Converting Formulas to Values	37
Hiding Formulas	39
Errors in Formulas	40
Dealing with Circular References	41
Goal Seeking	42
A goal seeking example	42
More about goal seeking	43
Chapter 3: Working with Names	45
What's in a Name?	45
A Name's Scope	46
Referencing names	47
Referencing names from another workbook	48
Conflicting names	48
The Name Manager	48
Creating names	49
Editing names	50
Deleting names	50
Shortcuts for Creating Cell and Range Names	50
The New Name dialog box	51
Creating names using the Name box	52
Creating names from text in cells	52
Naming entire rows and columns	54
Names created by Excel	55
Creating Multisheet Names	55
Working with Range and Cell Names	57
Creating a list of names	58
Using names in formulas	59
Using the intersection operators with names	59
Using the range operator with names	61
Referencing a single cell in a multicell named range	61
Applying names to existing formulas	62
Applying names automatically when creating a formula	63
Unapplying names	63
Names with errors	64
Viewing named ranges	64
Using names in charts	64
How Excel Maintains Cell and Range Names	65
Inserting a row or column	65
Deleting a row or a column	65
Cutting and pasting	65
Potential Problems with Names	66
Name problems when copying sheets	66
Name problems when deleting sheets	66

The Secret to Understanding Names	68
Naming constants	68
Naming text constants	69
Using worksheet functions in named formulas	70
Using cell and range references in named formulas	71
Using named formulas with relative references	72
Advanced Techniques That Use Names	75
Using the INDIRECT function with a named range	75
Using arrays in named formulas	77
Creating a dynamic named formula	78
Using an XLM macro in a named formula	80

Part II: Leveraging Excel Functions

Chapter 4: Introducing Worksheet Functions	85
What Is a Function?	85
Simplify your formulas	86
Perform otherwise impossible calculations	86
Speed up editing tasks	86
Provide decision-making capability	87
More about functions	87
Function Argument Types	88
Names as arguments	89
Full-column or full-row as arguments	89
Literal values as arguments	90
Expressions as arguments	90
Other functions as arguments	91
Arrays as arguments	91
Ways to Enter a Function into a Formula	91
Entering a function manually	91
Using the Function Library commands	93
Using the Insert Function dialog box	94
More tips for entering functions	96
Chapter 5: Manipulating Text	99
A Few Words About Text	99
How many characters in a cell?	99
Numbers as text	99
Text Functions	101
Determining whether a cell contains text	101
Working with character codes	102
Determining whether two strings are identical	105
Joining two or more cells	105
Displaying formatted values as text	106
Displaying formatted currency values as text	108
Removing excess spaces and nonprinting characters	108
Counting characters in a string	109

Repeating a character or string	109
Creating a text histogram	110
Padding a number.....	111
Changing the case of text	112
Extracting characters from a string	113
Replacing text with other text	113
Finding and searching within a string	114
Searching and replacing within a string	115
Advanced Text Formulas	115
Counting specific characters in a cell	116
Counting the occurrences of a substring in a cell	116
Removing trailing minus signs	116
Expressing a number as an ordinal	117
Determining a column letter for a column number	118
Extracting a filename from a path specification	118
Extracting the first word of a string	119
Extracting the last word of a string	119
Extracting all but the first word of a string	120
Extracting first names, middle names, and last names	120
Removing titles from names	122
Counting the number of words in a cell	122
Chapter 6: Working with Dates and Times	125
How Excel Handles Dates and Times	125
Understanding date serial numbers	126
Entering dates	127
Understanding time serial numbers	129
Entering times	130
Formatting dates and times	131
Problems with dates	133
Date-Related Functions	134
Displaying the current date	135
Displaying any date with a function	136
Generating a series of dates	137
Converting a nondate string to a date	138
Calculating the number of days between two dates	139
Calculating the number of work days between two dates	139
Offsetting a date using only work days	141
Calculating the number of years between two dates	141
Calculating a person's age	142
Determining the day of the year	143
Determining the day of the week	144
Determining the week of the year	144
Determining the date of the most recent Sunday	144
Determining the first day of the week after a date	145
Determining the <i>n</i> th occurrence of a day of the week in a month	145
Counting the occurrences of a day of the week	146

Expressing a date as an ordinal number	147
Calculating dates of holidays	147
Determining the last day of a month	150
Determining whether a year is a leap year	151
Determining a date's quarter	151
Converting a year to roman numerals	151
Time-Related Functions	152
Displaying the current time	152
Displaying any time using a function	153
Calculating the difference between two times	154
Summing times that exceed 24 hours	155
Converting from military time	157
Converting decimal hours, minutes, or seconds to a time	158
Adding hours, minutes, or seconds to a time	158
Converting between time zones	159
Rounding time values	160
Calculating Durations	161
Chapter 7: Counting and Summing Techniques	163
Counting and Summing Worksheet Cells	163
Other Counting Methods	165
Basic Counting Formulas	165
Counting the total number of cells	166
Counting blank cells	166
Counting nonblank cells	167
Counting numeric cells	167
Counting text cells	168
Counting nontext cells	168
Counting logical values	168
Counting error values in a range	168
Advanced Counting Formulas	169
Counting cells with the COUNTIF function	169
Counting cells that meet multiple criteria	170
Counting the most frequently occurring entry	173
Counting the occurrences of specific text	174
Counting the number of unique values	176
Creating a frequency distribution	178
Summing Formulas	184
Summing all cells in a range	184
Summing a range that contains errors	185
Computing a cumulative sum	186
Summing the "top <i>n</i> " values	187
Conditional Sums Using a Single Criterion	188
Summing only negative values	189
Summing values based on a different range	190
Summing values based on a text comparison	190
Summing values based on a date comparison	190

Conditional Sums Using Multiple Criteria	191
Using And criteria	191
Using Or criteria	192
Using And and Or criteria	193
Chapter 8: Using Lookup Functions	195
What Is a Lookup Formula?	195
Functions Relevant to Lookups	196
Basic Lookup Formulas	198
The VLOOKUP function	198
The HLOOKUP function	200
The LOOKUP function	201
Combining the MATCH and INDEX functions	202
Specialized Lookup Formulas	203
Looking up an exact value	204
Looking up a value to the left	206
Performing a case-sensitive lookup	207
Choosing among multiple lookup tables	207
Determining letter grades for test scores	208
Calculating a grade point average	209
Performing a two-way lookup	211
Performing a two-column lookup	212
Determining the address of a value within a range	213
Looking up a value by using the closest match	214
Looking up a value using linear interpolation	215
Chapter 9: Working with Tables and Lists	219
Tables and Terminology	219
A list example	220
A table example	220
Working with Tables	222
Creating a table	222
Changing the look of a table	223
Navigating and selecting in a table	224
Adding new rows or columns	225
Deleting rows or columns	226
Moving a table	226
Removing duplicate rows from a table	227
Sorting and filtering a table	228
Working with the Total row	233
Using formulas within a table	235
Referencing data in a table	237
Converting a table to a list	241
Using Advanced Filtering	242
Setting up a criteria range	242
Applying an advanced filter	243
Clearing an advanced filter	245

Specifying Advanced Filter Criteria	245
Specifying a single criterion	245
Specifying multiple criteria	247
Specifying computed criteria	249
Using Database Functions	250
Inserting Subtotals	252
Chapter 10: Miscellaneous Calculations	257
Unit Conversions	257
Rounding Numbers	261
Basic rounding formulas	262
Rounding to the nearest multiple	263
Rounding currency values	263
Working with fractional dollars	264
Using the INT and TRUNC functions	265
Rounding to an even or odd integer	266
Rounding to <i>n</i> significant digits	267
Solving Right Triangles	267
Area, Surface, Circumference, and Volume Calculations	270
Calculating the area and perimeter of a square	270
Calculating the area and perimeter of a rectangle	270
Calculating the area and perimeter of a circle	270
Calculating the area of a trapezoid	271
Calculating the area of a triangle	271
Calculating the surface and volume of a sphere	271
Calculating the surface and volume of a cube	271
Calculating the surface and volume of a rectangular solid	272
Calculating the surface and volume of a cone	272
Calculating the volume of a cylinder	272
Calculating the volume of a pyramid	273
Solving Simultaneous Equations	273
Working with Normal Distributions	274

Part III: Financial Formulas

Chapter 11: Borrowing and Investing Formulas	279
The Time Value of Money	279
Loan Calculations	280
Worksheet functions for calculating loan information	281
A loan calculation example	284
Credit card payments	285
Creating a loan amortization schedule	287
Calculating a loan with irregular payments	288
Investment Calculations	290
Future value of a single deposit	290
Present value of a series of payments	296
Future value of a series of deposits	296

Chapter 12: Discounting and Depreciation Formulas	299
Using the NPV Function	299
Definition of NPV	300
NPV function examples	301
Using the IRR Function	306
Rate of return	307
Geometric growth rates	308
Checking results	309
Irregular Cash Flows	310
Net present value	310
Internal rate of return	311
Depreciation Calculations	312
Chapter 13: Financial Schedules	317
Creating Financial Schedules	317
Creating Amortization Schedules	318
A simple amortization schedule	318
A dynamic amortization schedule	320
Credit card calculations	323
Summarizing Loan Options Using a Data Table	325
Creating a one-way data table	325
Creating a two-way data table	327
Financial Statements and Ratios	329
Basic financial statements	329
Ratio analysis	333
Creating Indices	337

Part IV: Array Formulas

Chapter 14: Introducing Arrays	341
Introducing Array Formulas	341
A multicell array formula	342
A single-cell array formula	343
Creating an array constant	344
Array constant elements	345
Understanding the Dimensions of an Array	346
One-dimensional horizontal arrays	346
One-dimensional vertical arrays	347
Two-dimensional arrays	347
Naming Array Constants	349
Working with Array Formulas	350
Entering an array formula	350
Selecting an array formula range	350
Editing an array formula	351
Expanding or contracting a multicell array formula	352
Using Multicell Array Formulas	353
Creating an array from values in a range	353

Creating an array constant from values in a range	353
Performing operations on an array	354
Using functions with an array	355
Transposing an array	355
Generating an array of consecutive integers	357
Using Single-Cell Array Formulas	358
Counting characters in a range	358
Summing the three smallest values in a range	359
Counting text cells in a range	360
Eliminating intermediate formulas	362
Using an array in lieu of a range reference	364
Chapter 15: Performing Magic with Array Formulas	365
Working with Single-Cell Array Formulas	365
Summing a range that contains errors	366
Counting the number of error values in a range	367
Summing the <i>n</i> largest values in a range	368
Computing an average that excludes zeros	368
Determining whether a particular value appears in a range	369
Counting the number of differences in two ranges	371
Returning the location of the maximum value in a range	372
Finding the row of a value's <i>n</i> th occurrence in a range	373
Returning the longest text in a range	373
Determining whether a range contains valid values	374
Summing the digits of an integer	375
Summing rounded values	377
Summing every <i>n</i> th value in a range	377
Removing nonnumeric characters from a string	379
Determining the closest value in a range	380
Returning the last value in a column	380
Returning the last value in a row	381
Working with Multicell Array Formulas	382
Returning only positive values from a range	382
Returning nonblank cells from a range	384
Reversing the order of cells in a range	384
Sorting a range of values dynamically	385
Returning a list of unique items in a range	386
Displaying a calendar in a range	387

Part V: Miscellaneous Formula Techniques

Chapter 16: Importing and Cleaning Data	393
A Few Words About Data	393
Importing Data	394
Importing from a file	394
Importing a text file into a specified range	396
Copying and pasting data	398

Data Cleanup Techniques	398
Removing duplicate rows	398
Identifying duplicate rows	400
Splitting text	401
Changing the case of text	407
Removing extra spaces	408
Removing strange characters	409
Converting values	409
Classifying values	410
Joining columns	411
Rearranging columns	412
Randomizing the rows	412
Matching text in a list	413
Change vertical data to horizontal data	414
Filling gaps in an imported report	417
Spelling checking	418
Replacing or removing text in cells	419
Adding text to cells	420
Fixing trailing minus signs	420
A Data Cleaning Checklist	421
Exporting Data	422
Exporting to a text file	422
Exporting to other file formats	423
Chapter 17: Charting Techniques	425
Understanding the SERIES Formula	425
Using names in a SERIES formula	427
Unlinking a chart series from its data range	428
Creating Links to Cells	429
Adding a chart title link	429
Adding axis title links	430
Adding text links	430
Adding a linked picture to a chart	430
Chart Examples	431
Single data point charts	431
Displaying conditional colors in a column chart	433
Creating a comparative histogram	434
Creating a Gantt chart	435
Creating a box plot	438
Plotting every <i>n</i> th data point	439
Identifying maximum and minimum values in a chart	441
Creating a Timeline	442
Plotting mathematical functions	443
Plotting a circle	448
Creating a clock chart	450
Creating awesome designs	452
Working with Trendlines	453
Linear trendlines	454

Working with nonlinear trendlines	460
Summary of trendline equations	461
Creating Interactive Charts	462
Selecting a series from a drop-down list	462
Plotting the last n data points	463
Choosing a start date and number of points	464
Displaying population data	465
Displaying weather data	465
Chapter 18: Pivot Tables	469
About Pivot Tables	469
A Pivot Table Example	470
Data Appropriate for a Pivot Table	472
Creating a Pivot Table Automatically	475
Creating a Pivot Table Manually	477
Specifying the data	477
Specifying the location for the pivot table	478
Laying out the pivot table	480
Formatting the pivot table	481
Modifying the pivot table	483
More Pivot Table Examples	485
Question 1	485
Question 2	486
Question 3	487
Question 4	487
Question 5	488
Question 6	489
Question 7	490
Grouping Pivot Table Items	491
A manual grouping example	491
Viewing grouped data	493
Automatic grouping examples	494
Creating a Frequency Distribution	498
Creating a Calculated Field or Calculated Item	499
Creating a calculated field	501
Inserting a calculated item	503
Filtering Pivot Tables with Slicers	506
Filtering Pivot Tables with a Timeline	507
Referencing Cells Within a Pivot Table	508
Another Pivot Table Example	510
Using the Data Model	513
Creating Pivot Charts	516
A pivot chart example	517
More about pivot charts	519
Chapter 19: Conditional Formatting	521
About Conditional Formatting	521
Specifying Conditional Formatting	523

Formatting types you can apply	523
Making your own rules	524
Conditional Formats That Use Graphics	525
Using data bars	525
Using color scales	527
Using icon sets	530
Creating Formula-Based Rules	533
Understanding relative and absolute references	534
Conditional formatting formula examples	536
Working with Conditional Formats	543
Managing rules	544
Copying cells that contain conditional formatting	544
Deleting conditional formatting	545
Locating cells that contain conditional formatting	545
Chapter 20: Using Data Validation	547
About Data Validation	547
Specifying Validation Criteria	548
Types of Validation Criteria You Can Apply	549
Creating a Drop-Down List	551
Using Formulas for Data Validation Rules	552
Understanding Cell References	552
Data Validation Formula Examples	554
Accepting text only	554
Accepting a larger value than the previous cell	554
Accepting nonduplicate entries only	554
Accepting text that begins with a specific character	555
Accepting dates by the day of the week	556
Accepting only values that don't exceed a total	556
Creating a dependent list	557
Using Structured Table Referencing	558
Chapter 21: Creating Megaformulas	561
What Is a Megaformula?	561
Creating a Megaformula: A Simple Example	562
Megaformula Examples	564
Using a megaformula to remove middle names	564
Using a megaformula to return a string's last space character position	569
Using a megaformula to determine the validity of a credit card number	573
Using Intermediate Named Formulas	578
Generating random names	579
The Pros and Cons of Megaformulas	580
Chapter 22: Tools and Methods for Debugging Formulas	581
Formula Debugging?	581
Formula Problems and Solutions	582
Mismatched parentheses	583
Cells are filled with hash marks	584

Blank cells are not blank	584
Extra space characters	585
Formulas returning an error	585
Absolute/relative reference problems	590
Operator precedence problems	591
Formulas are not calculated	592
Actual versus displayed values	592
Floating-point number errors	593
Phantom link errors	594
Logical value errors	595
Circular reference errors	596
Excel's Auditing Tools	596
Identifying cells of a particular type	596
Viewing formulas	597
Tracing cell relationships	598
Tracing error values	600
Fixing circular reference errors	600
Using background error checking	600
Using Excel's Formula Evaluator	603

Part VI: Developing Custom Worksheet Functions

Chapter 23: Introducing VBA	607
Fundamental Macro Concepts	607
Activating the Developer tab	608
Recording a macro	608
Understanding macro-enabled extensions	611
Macro security in Excel	611
Trusted locations	611
Storing macros in your Personal Macro Workbook	612
Assigning a macro to a button and other form controls	612
Placing a macro on the Quick Access toolbar	614
Working in the Visual Basic Editor	615
Understanding VBE components	615
Working with the Project window	616
Working with a code window	619
Customizing the VBA environment	622
Chapter 24: VBA Programming Concepts	627
A Brief Overview of the Excel Object Model	627
Understanding objects	628
Understanding collections	628
Understanding properties	629
Understanding methods	629
A brief look at variables	630
Error handling	633
Using code comments	636

An Introductory Example Function Procedure	636
Using Built-In VBA Functions	638
Controlling Execution	640
The If-Then construct	640
The Select Case construct	642
Looping blocks of instructions	643
Using Ranges	648
The For Each-Next construct	648
Referencing a range	649
Some useful properties of ranges	651
The Set keyword	655
The Intersect function	655
The Union function	656
The UsedRange property	656
Chapter 25: Function Procedure Basics	659
Why Create Custom Functions?	659
An Introductory VBA Function Example	660
About Function Procedures	662
Declaring a function	662
Choosing a name for your function	663
Using functions in formulas	664
Using function arguments	665
Using the Insert Function Dialog Box	665
Adding a function description	666
Specifying a function category	667
Adding argument descriptions	669
Testing and Debugging Your Functions	670
Using the VBA MsgBox statement	671
Using Debug.Print statements in your code	673
Calling the function from a Sub procedure	673
Setting a breakpoint in the function	676
Creating Add-Ins for Functions	676
Chapter 26: VBA Custom Function Examples	679
Simple Functions	679
Is the cell hidden?	680
Returning a worksheet name	680
Returning a workbook name	681
Returning the application's name	681
Returning Excel's version number	682
Returning cell formatting information	682
Determining a Cell's Data Type	684
A Multifunctional Function	685
Generating Random Numbers	688
Generating random numbers that don't change	688
Selecting a cell at random	690

Calculating Sales Commissions	691
A function for a simple commission structure	691
A function for a more complex commission structure	692
Text Manipulation Functions	693
Reversing a string	694
Scrambling text	694
Returning an acronym	695
Does the text match a pattern?	695
Does a cell contain a particular word?	696
Does a cell contain text?	698
Extracting the <i>n</i> th element from a string	698
Spelling out a number	699
Counting Functions	700
Counting pattern-matched cells	700
Counting sheets in a workbook	700
Counting words in a range	701
Date Functions	701
Calculating the next Monday	702
Calculating the next day of the week	702
Which week of the month?	703
Working with dates before 1900	703
Returning the Last Nonempty Cell in a Column or Row	704
The LASTINCOLUMN function	705
The LASTINROW function	705
Multisheet Functions	706
Returning the maximum value across all worksheets	706
The SHEETOFFSET function	708
Advanced Function Techniques	709
Returning an error value	709
Returning an array from a function	710
Returning an array of nonduplicated random integers	712
Randomizing a range	714
Using optional arguments	716
Using an indefinite number of arguments	717

Part VII: Appendixes

Appendix A: Excel Function Reference	725
Appendix B: Using Custom Number Formats	743
Index	763

INTRODUCTION

There's no arguing that formulas are the true engines of Excel. Employing various Excel functions, formulas enable Excel analysts to create aggregated reporting, complex calculation engines, clever dashboard models, and much more. Indeed, Excel analysts become more productive as their proficiency with Excel functions and formulas improves.

But building proficiency with Excel functions and formulas takes time. Given that Excel contains more than 400 functions, you could spend months, even years, learning which functions are best for certain tasks and which functions can be combined with others functions.

This is where this book comes in. Here, we will introduce you to the world of Excel formulas by guiding you through the various built-in functions Excel has to offer. Each chapter builds on the last, taking you from basic math functions to actually building your own custom functions.

As you'll discover, leveraging Excel functions will not only make you more productive, but it will allow you to accomplish tasks that you didn't know could be handled with Excel formulas.

What You Need to Know

This is *not* a book for beginning Excel users. If you have absolutely no experience with Excel, this is probably not the best book for you unless you're one of a rare breed who can learn a new software product almost instantaneously.

To get the most out of this book, you should have some background using Excel. Specifically, we assume that you know how to

- Create workbooks, insert sheets, save files, and complete other basic tasks.
- Navigate a workbook.
- Use the Excel Ribbon and dialog boxes.
- Use basic Windows features, such as file management and copy-and-paste techniques.

What You Need to Have

This book was written with Excel 2016 as a base, but most of the material also applies to Excel 2007–2013. If you're using a version prior to Excel 2016, you may find that a handful of functions (such as the new Forecasting functions introduced in Excel 2016) will not be available to you. Any function not available in all four versions of Excel will be called out in each chapter.

If you are using a version of Excel prior to 2007, we highly recommend you pick up a previous edition of this book. The changes introduced in Excel 2007 are so extensive that you might be hopelessly confused if you try to follow along using an earlier version of Excel.

To download the examples for this book, you need to access the Internet. The examples are discussed further in the "About This Book's Website" section, later in this Introduction.



Note that the examples for this book were created on the Windows platform. For you MAC users, we can't guarantee that all examples will work with Excel for Mac. Excel's cross-platform compatibility is pretty good, but it's definitely not perfect.

As far as hardware goes, the faster the better. And, of course, the more memory in your system, the happier you'll be.

Conventions in This Book

Take a minute to skim this section and learn some of the typographic conventions used throughout this book.

Keyboard conventions

You use the keyboard to enter formulas. In addition, you can work with menus and dialog boxes directly from the keyboard—a method you may find easier if your hands are already positioned over the keys.

Formula listings

Formulas usually appear on a separate line in `monospace font`. For example, we may list the following formula:

```
=VLOOKUP (StockNumber , PriceList , 2 , False)
```

Excel supports a special type of formula known as an *array formula*. When you enter an array formula, press Ctrl+Shift+Enter (not just Enter). Excel encloses an array formula in brackets in order to remind you that it's an array formula. When we list an array formula, we include the brackets to make it clear that it is, in fact, an array formula. For example:

```
{ =SUM ( LEN ( A1 : A10 ) ) }
```