

Index

Symbols and Numerics

- + (addition) operator, 176
- : (colon) range reference operator, 201
- , (comma) union operator, 201
- & (concatenation) operator, 176, 210
- / (division) operator, 176
- #DIV/0! error value, 554–555
- = (equal to) operator, 176
- ^ (exponentiation) operator, 176
- > (greater than) operator, 176
- >= (greater than or equal to) operator, 176
- # (hash mark), denoting error values, 195, 552
- < (less than) operator, 176
- <= (less than or equal to) operator, 176
- * (multiplication) operator, 176
- #N/A error value, 555
- #NAME? error value, 555- (negative sign), 476–477
- <> (not equal to) operator, 176
- #NULL! error value, 555–556
- #NUM! error value, 556
- #REF! error value, 556
- (subtraction) operator, 176
- 3-D charts, 406–407
- #VALUE! error value, 556
- 1900 date system, 224
- 1904 date system, 224

A

- ABS function, 792
- absolute cell references, 187–191, 556–557
- absolute macro recording, 692
- accelerator keys
 - dialog boxes, 16
 - UserForms, 732
- accepting changes, 538
- Access databases, importing, 576–578
- accessing
 - CD-ROM, 800
 - external database files, 575
 - help system, 809
 - newsgroups, 811
 - Ribbon with keyboard, 12
 - worksheets, 4
- Accounting format, 50
- ACCRINT function, 789
- ACCRINTM function, 789

- accuracy of large values, 36
- ACOS function, 792
- ACOSH function, 792
- actions
 - repeating, 13
 - undoing, 13
- Activate event
 - workbooks, 747
 - worksheets, 751
- activating
 - charts, 360
 - dialog box controls, 16
 - worksheets, 56–57
- active area (of worksheets), 156
- active cell, 7
- active cell indicator, 6
- ActiveX controls
 - CheckBox, 735, 739
 - ComboBox, 735, 740
 - CommandButton, 735, 740
 - defined, 734
 - design mode, 736
 - Image, 735, 741
 - inserting, 733–736
 - Label, 735, 741
 - linking to cells, 738
 - ListBox, 735, 741
 - listing, 735
 - macros, 738–739
 - OptionButton, 735, 741–742
 - properties, 736–738
 - ScrollBar, 735, 742
 - SpinButton, 735, 743
 - testing, 736
 - TextBox, 735, 743–744
 - ToggleButton, 735, 744
 - UserForms, 721–723
- actual versus displayed values, 558
- Add Constraint dialog box, 654–655
- Add Scenario dialog box, 644–645
- Add View dialog box, 172
- adding
 - background images, 121
 - chart elements, 361
 - chart titles, 388
 - columns to tables, 101
 - columns to worksheets, 66–67

- adding (*continued*)
 - commands to Quick Access Toolbar, 462–463
 - comments, 90–91
 - data series to a chart, 398–399
 - data to outlines, 496
 - digital signatures, 140
 - hours, minutes, or seconds to a time, 246–247
 - legend (charts), 389
 - records to databases, 588
 - rows to tables, 101
 - rows to worksheets, 66–67
 - scenarios, 644–645
 - text to Shapes, 444
 - worksheets to workbooks, 57
- AddinInstall event, 747
- add-ins
 - Add-In Manager, 772
 - Analysis ToolPak add-in
 - analysis of variance, 669–670
 - correlation, 670
 - covariance, 670
 - Data Analysis dialog box, 668
 - descriptive statistics, 670–671
 - exponential smoothing, 671
 - features, 667–668, 773
 - Fourier analysis, 672
 - frequency distributions, 263–264
 - F-Test, 671–672
 - histograms, 672
 - installing, 265, 668
 - moving average, 673
 - percentiles, 675
 - procedures, 668–669
 - random number generation, 673–674
 - ranks, 675
 - regression, 675
 - sampling, 676
 - t-Test, 676–677
 - z-Test, 677
 - Analysis ToolPak—VBA add-in, 773
 - closing, 772
 - Conditional Sum wizard add-in, 270, 773
 - converting workbooks into add-ins, 771–774
 - creating, 773–774
 - defined, 771
 - downloading, 773
 - Euro Currency Tools add-in, 773
 - examples, 775–781
 - installing, 775, 780–781
 - Internet Assistant VBA add-in, 773
 - Lookup Wizard add-in, 773
 - opening, 772
 - PDF add-in, 34, 546–547
 - Power Utility Pak add-in, 229
 - Solver add-in
 - appropriate problems for, 652
 - constraints, 654–655
 - defined, 649, 773
 - examples, 653–666
 - Frontline Systems Web site, 662
 - installing, 652
 - user interface, 773, 779–781
 - uses, 771–772
- Add-Ins dialog box, 772
- Add-Ins tab (Ribbon), 9
- AddinUninstall event, 747
- addition (+) operator, 176
- ADDRESS function, 792
- addresses of ranges
 - defined, 7
 - examples, 71
 - specifying, 71
- adjusting
 - footer distance from the bottom of the page, 162
 - header distance from the top of the page, 162
 - margins, 156, 160–161
 - page breaks, 157, 159
- Adobe Systems, 546
- alert messages in VBA, 767
- aligning
 - headers and footers with margins, 168
 - Shapes, 446
 - text, 115–116
- allocating resources, 662–664
- alternate-row shading, 436–437
- alternatives
 - to comments, 92
 - to UserForms, 716–720
- AMORDEGRC function, 789
- AMORLINC function, 789
- amortization schedule, 297–299
- Analysis ToolPak add-in
 - analysis of variance, 669–670
 - correlation, 670
 - covariance, 670
 - Data Analysis dialog box, 668
 - descriptive statistics, 670–671
 - exponential smoothing, 671
 - features, 667–668, 773
 - Fourier analysis, 672
 - frequency distributions, 263–264
 - F-Test, 671–672
 - histograms, 672
 - installing, 265, 668
 - moving average, 673
 - percentiles, 675
 - procedures, 668–669
 - random number generation, 673–674
 - ranks, 675
 - regression, 675

- sampling, 676
 - t-Test, 676–677
 - z-Test, 677
 - Analysis ToolPak—VBA add-in, 773
 - And criteria
 - counting formulas, 256–257
 - summing formulas, 271–272
 - AND function, 791
 - angled text, 117–118
 - animated border around ranges, 79
 - annuities, 307–309
 - ANSI character set, 207–208
 - Application close button, 6
 - applications
 - minimizing, 6
 - multiuser, 532
 - applying
 - borders, 119–121
 - chart templates, 410–411
 - conditional formatting, 423
 - fonts to ranges, 114
 - named styles, 123
 - templates, 146–148
 - themes, 126–128
 - area charts, 373
 - AREAS function, 792
 - arguments
 - function procedures (VBA), 707–711
 - functions, 180–181, 185–186
 - Arrange Windows dialog box, 55, 62
 - arranging
 - Shapes, 445
 - windows, 55, 62
 - worksheets, 58–59
 - array formulas
 - advantages, 322
 - array constant elements, 317
 - array constants, 316–317
 - contracting multicell array formula, 322
 - defined, 313
 - disadvantages, 322
 - editing, 321–322
 - eliminating intermediate formulas, 330–331
 - entering, 320–321
 - errors, 552
 - expanding a multicell array formula, 322
 - Formula Evaluator, 342
 - functions, 325–327
 - multicell, 314–315, 323–327
 - range references, 331–332
 - ranking data, 344–345
 - selecting an array formula range, 321
 - single-cell, 315–316, 327–330
 - arrays
 - defined, 313
 - generating arrays of consecutive integers, 326
 - named arrays, 319–320
 - one-dimensional, 313, 317–318
 - three-dimensional, 313
 - transposing, 325–326
 - two-dimensional, 313, 318–319
 - arrow keys, 42
 - ASIN function, 792
 - ASINH function, 792
 - Assign Macro dialog box, 731
 - assigning
 - macros to buttons, 693–694
 - shortcut keys to macros, 693
 - user permissions, 542
 - values to variables, 696
 - ATAN function, 792
 - ATAN2 function, 792
 - ATANH function, 792
 - attributes of named styles, 122–123
 - AutoComplete feature, 32, 43–45, 181–183
 - AutoCorrect feature, 570–571
 - AutoFill feature, 43, 232
 - Automatic Calculation mode, 198
 - automatic number formatting, 47–48, 466
 - AutoRecover feature, 136
 - AutoSize property, 737
 - AVEDEV function, 794
 - AVERAGE function, 794
 - AVERAGEA function, 794
 - AVERAGEIF function, 34, 189, 794
 - AVERAGEIFS function, 34, 189, 794
 - axes (charts)
 - category axis, 354, 396–397
 - formatting, 362
 - modifying, 391–397
 - value axis, 354, 391–395
- ## B
- BackColor property, 737
 - background error-checking feature, 564–566
 - background images, 121–122, 163, 457
 - BackColor property, 737
 - backups of workbook files, 136–137, 141–142
 - BAHTTEXT function, 797
 - Banded Columns, 102
 - Banded Rows, 102
 - bar charts, 367–368
 - BeforeClose event
 - workbooks, 747
 - worksheets, 750
 - BeforeDoubleClick event, 751
 - BeforePrint event, 747

- BeforeRightClick event, 751, 753
 - BeforeSave event, 747, 750
 - BESSELI function, 787
 - BESSELJ function, 787
 - BESSELK function, 787
 - BESSELY function, 787
 - BETADIST function, 794
 - BETAINV function, 794
 - bin range (histogram), 672
 - BIN2DEC function, 787
 - BIN2HEX function, 787
 - BIN2OCT function, 788
 - BINOMDIST function, 794
 - bitmap images, 453
 - blank cells, 76, 252, 553
 - blog for a Daily Dose of Excel, 814
 - Boolean data type (VBA), 768
 - borders
 - animated border around ranges, 79
 - applying, 119–121
 - colors, 119
 - drawing, 119
 - styles, 119–120
 - breaking links, 560
 - bubble charts, 377–378
 - buttons
 - Application close, 6
 - assigning macros to buttons, 693–694
 - Format Painter, 122
 - Maximize, 6
 - Minimize application, 6
 - Minimize window, 6
 - Office, 6
 - Page view, 6
 - Restore, 6
 - Ribbon, 11–12
 - scroll buttons for sheet tabs, 6
 - Search, 810
 - Window close, 6
 - Byte data type (VBA), 768
- C**
- Calculate event, 751
 - calculated fields, 618–621
 - calculated items, 618–619, 621–623
 - calculations
 - Automatic Calculation mode, 198
 - average that excludes zeros, 335–336
 - difference between two times, 243
 - Formula bar, 203
 - grade-point average (GPA), 284–285
 - Manual Calculation mode, 198
 - number formatting, 50
 - number of days between two dates, 233–234
 - number of work days between two dates, 234–235
 - number of years between two dates, 235
 - person's age, 236
 - pivot tables, 600
 - calendar, displaying calendar in a range, 347–348
 - callouts on charts, 389–390
 - Camera tool, 457
 - Caption property, 737
 - case of text, changing, 214–215
 - case-sensitive lookup formula, 282–283
 - category axis (charts), 354, 396–397
 - CD-ROM
 - accessing, 800
 - demo versions of software, 800
 - eBook version of *Excel 2007 Bible*, 800
 - evaluation versions of software, 800
 - freeware programs, 800
 - GNU software, 800
 - ReadMe file, 799
 - sample files, 800–806
 - shareware programs, 800
 - system requirements, 799
 - technical support, 807
 - trial versions of software, 800
 - troubleshooting, 807
 - CEILING function, 792
 - CELL function, 791
 - cell pointer, moving, 41–42
 - cell ranges
 - addresses
 - defined, 7
 - examples of, 71
 - specifying, 71
 - array formulas, 331–332
 - contiguous, 73
 - copying, 78–83, 758–759
 - counting
 - characters in a range, 327–328
 - error values in a range, 253–254
 - number of differences in two ranges, 337
 - number of error values in a range, 334
 - selected cells, 763–764
 - text cells in a range, 329–330
 - defined, 71
 - determining
 - cell address of a value within a range, 287–288
 - closest value in a range, 343
 - type of selection, 762–763
 - whether a particular value appears in a range, 336–337
 - whether a range contains valid values, 338–339
 - displaying calendar in a range, 347–348
 - external data ranges, 585–586
 - finding row of a value's nth occurrence in a range, 338
 - fonts, 114–115

- formulas, 183–184
- identifying a multiple selection, 763
- looping, 760–762
- marching ants border, 79
- moving, 78–80, 760
- moving within, 817
- multisheet, 74–75
- named ranges
 - creating, 87–89
 - deleting, 90
 - editing, 90
 - filtering, 90
 - Name Manager, 89–90
- noncontiguous, 73–74
- pasting, 84–86
- range intersections, 200–202
- returning
 - last value in a column, 343–344
 - last value in a row, 344
 - list of unique items in a range, 347
 - location of the maximum value in a range, 337–338
 - longest text in a range, 338
 - nonblank cells from a range, 346
 - only positive values from a range, 345–346
- selecting, 42, 72–78
- summing
 - all cells in a range, 265–266
 - digits of an integer, 339–340
 - every nth value in a range, 341–342
 - n* largest values in a range, 335
 - range that contains errors, 333–334
 - rounded values, 340–341
 - three smallest values in a range, 328–329
- tables
 - converting cell ranges into tables, 95–98
 - converting tables into cell ranges, 107
- taking a “picture” of a range, 457
- transposing, 86
- VBA, 757–758
- cell references
 - absolute, 187–191, 556–557
 - circular references, 196–197, 552
 - colors, 557
 - data validation, 485–487
 - formulas, 187–191, 202–203
 - mixed, 187–190
 - names, 202–203
 - pivot tables, 624–626
 - relative, 187–188, 191, 556–557
- cells
 - active cell (defined), 7
 - active cell indicator, 6
 - addresses of, 7
 - blank cells, 76, 252, 553
 - borders
 - animated border around ranges, 79
 - applying, 119–121
 - colors, 119
 - drawing, 119
 - styles, 119–120
 - colors, 118–119
 - contents of
 - character limits, 205
 - clearing, 40
 - deleting, 39–40
 - editing, 40–41
 - hiding, 119, 478–479
 - replacing, 40
 - counting
 - blank cells, 252
 - cells by using multiple criteria, 255
 - nonblank cells, 253
 - nontext cells, 253
 - numeric cells, 253
 - selected cells, 763–764
 - text cells, 253
 - total number of cells, 252, 254–255
 - data types
 - formulas, 36–37
 - numerical values, 35–39
 - text, 36–38
 - defined, 4, 7, 71
 - dependents, 563–564
 - drop-down lists, 484–485
 - filling with repeating characters, 479
 - finding, 77–78, 560–561
 - gridlines, printing, 165
 - joining, 210
 - linking controls to cells, 738
 - locking, 540–541
 - merging, 117
 - monitoring, 65–66
 - Name box, 6–7
 - number of, 35
 - precedents, 562–563
 - preventing certain cells from printing, 170
 - prompting for a cell value, 762
 - protecting, 540–541
 - scenarios, 645
 - selecting, 76–77, 816–817
 - shrinking text to fit a cell, 116–117
 - tracing cell relationships, 562–564
 - unlocking, 540–541
 - wrapping text to fit a cell, 116
 - zeros, distinguishing from blank cells, 279
- Change Chart Type dialog box, 358–359
- Change event, 751–752
- change history, 535

- changing
 - case of text, 214–215
 - chart types, 358–359, 365
 - column widths in worksheets, 68–69
 - data used by a data series in a chart, 399–401
 - default number of worksheets in workbooks, 58
 - fonts, 113
 - row heights in worksheets, 68–69
 - shape of comments, 92–93
- CHAR function, 207–210, 797
- characters
 - ANSI character set, 207–208
 - code numbers, 207–208
 - counting
 - characters in a range, 327–328
 - characters in a text string, 214
 - specific characters in a cell, 217
 - extracting characters from a text string, 215
 - nonprinting characters, 214
 - number a cell can hold, 205
 - removing non-numeric characters from a string, 342
 - repeating, 212, 479
 - special characters, 209
- Chart Element control, 383–384
- charts
 - activating, 360
 - area charts, 373
 - axes
 - category axis, 354, 396–397
 - formatting, 362
 - modifying, 391–397
 - value axis, 354, 391–395
 - bar charts, 367–368
 - bubble charts, 377–378
 - callouts, 389
 - chart area
 - defined, 355
 - modifying, 386
 - chart sheets, 4, 353
 - colors, 414–415
 - column charts, 356–357, 365–367, 414–415
 - combination charts, 407–409
 - comparisons, 363
 - copying, 361
 - creating, 21–22, 355–356
 - data labels, 354, 401–402
 - data points
 - defined, 354
 - missing data, 402–403
 - data series
 - adding, 398–399
 - callouts, 389–390
 - changing data, 399–401
 - defined, 352–354
 - deleting, 398
 - editing, 389, 399–401
 - legend, 352, 354, 389
 - selecting, 398
 - data tables, 409–410
 - defined, 351
 - deleting, 361
 - doughnut charts, 374
 - elements
 - adding, 361
 - deleting, 361–362
 - formatting, 362
 - modifying, 384–386
 - moving, 361–362
 - resetting formatting, 387
 - selecting, 381–384
 - embedded, 353
 - error bars, 403–404
 - experimentation, 398
 - formatting, 390
 - Gantt charts, 417–418
 - gauge chart, 413–414
 - gridlines, 354, 391
 - histograms, 212–213, 415–416
 - layout, 357–358
 - legend, 352, 354, 389
 - line charts, 368–370
 - mathematical functions, 418–420
 - moving, 353, 361
 - new features, 28, 351
 - picture charts, 411–412
 - pie charts, 370–371
 - pivot charts
 - creating, 626
 - examples, 627–632
 - formatting, 33
 - reports, 632–634
 - plot area
 - defined, 355
 - modifying, 387–388
 - printing, 363
 - radar charts, 374–376
 - resizing, 361
 - scale values, 354
 - Shapes, 441
 - stock charts, 379–380
 - styles, 360
 - surface charts, 377
 - templates
 - applying, 410–411
 - creating, 390, 410–411
 - text, 388
 - thermometer chart, 412–413
 - 3-D charts, 406–407
 - titles, 354, 358, 388
 - trendlines, 404–405

- types
 - changing, 358–359, 365
 - choosing, 356–357, 363–364
 - layout, 358
 - layouts, 357
 - uses, 351–352
 - VBA, 765–766
 - XY (scatter) charts, 371–372
- CheckBox control, 735, 739
- checkerboard shading, 437
- checking spelling, 569–570
- CHIDIST function, 794
- CHINV function, 794
- CHITEST function, 794
- Choose Data Source dialog box, 579–581
- CHOOSE function, 274, 792
- choosing
 - chart types, 356, 363–364
 - data sources, 579–581
 - printers, 169
- circular references, 196–197, 552, 564
- CLEAN function, 214, 797
- clearing
 - conditional formatting, 439–440
 - contents of cells, 40
- client-server networks, 532
- Clip Art taskbar, 18–19, 454–455
- Clip Organizer, 455
- Clipboards, 80, 83, 522
- closing
 - add-ins, 772
 - Excel 2007, 6
 - windows, 6, 54, 56
 - workbooks, 6, 141, 764–765
- clustered column chart, 365
- code
 - assigning values to variables, 696
 - editing, 694
 - entering, 694–695
 - events, 745–747, 750
 - object model, 696
 - parts of, 695–696
 - writing, 694–695
- CODE function, 207–208, 797
- codes
 - character codes, 207–208
 - headers and footers, 167
 - number format string, 469–471
- collaboration features, 33
- collapsing outlines, 492–493, 496
- collections, 696–697
- colon (:) range reference operator, 201
- color scales conditional formatting, 423, 428–430
- color schemes, 34
- colors
 - borders, 119
 - cell references, 557
 - cells, 118–119
 - charts, 414–415
 - gridlines, 391
 - sheet tabs, 58
 - SmartArt, 452
 - tables, 98–99, 119
 - text, 118–119
 - themes, 129
- column charts
 - clustered, 356–358, 365
 - conditional colors, 414–415
 - defined, 365
 - stacked, 366
 - 3-D, 367
- COLUMN function, 792
- column labels (pivot tables), 598
- Column Width dialog box, 68
- COLUMNS function, 792
- columns (tables)
 - adding, 101
 - Banded Columns, 102
 - defined, 95
 - deleting, 101
 - First Column, 102
 - Last Column, 102
 - selecting, 100
- columns (worksheets)
 - adding, 66–67
 - deleting, 67
 - headers, printing, 166
 - hiding, 67–68
 - inserting, 66–67
 - letters, 6–7
 - selecting, 73, 760
 - selecting to the end of a column, 759–760
 - titles, printing, 164–165
 - unhiding, 68
 - widths
 - changing, 68–69
 - pasting, 85
- COMBIN function, 793
- combination charts, 407–409
- ComboBox control, 735, 740
- comma (,) union operator, 201
- CommandButton control, 735, 740
- commands
 - dialog boxes, 15–18
 - Quick Access Toolbar, 15, 462–464
 - repeating, 13
 - Ribbon, 6, 9–13
 - shortcut menus, 13–14
 - undoing, 13

- comments
 - adding, 90–91
 - alternative options, 92
 - changing shape of, 92–93
 - deleting, 93
 - displaying, 91, 93
 - editing, 93
 - formatting, 91
 - hiding, 93
 - inserting, 90–91
 - pasting, 85
 - reading, 93
 - scenarios, 645
 - selecting, 76
 - shapes, 92–93
 - unhiding, 93
- comparative histogram charts, 415–416
- Compare Side by Side feature, 63
- comparing worksheets, 56, 63
- comparison charts, 363
- Compatibility Checker, 33, 140–141
- Compatibility Checker dialog box, 140–141
- Compatibility Pack, 142–143
- COMPLEX function, 788
- compound interest, 304–306
- computer networks, 531–532
- CONCATENATE function, 797
- concatenation, 210
- concatenation (&) operator, 176, 210
- conditional formatting
 - alternate-row shading, 436–437
 - applying, 422–423
 - checkerboard shading, 437
 - clearing, 439–440
 - color scales, 423, 428–430
 - copying, 439
 - data bars, 423, 425–427
 - defined, 421–422
 - deleting, 439–440
 - finding, 440
 - formulas, 434–438
 - highlight cell rules, 422
 - icon sets, 423, 430–433
 - new features, 30, 423
 - replacing, 440
 - rule management, 439
 - rules, 422–425
 - top bottom rules, 423
- Conditional Formatting Rules Manager dialog box, 433–434, 439
- Conditional Sum Wizard add-in, 270, 773
- conditional sums, 268–271
- CONFIDENCE function, 795
- Consolidate dialog box, 507–509
- consolidated options, 31
- consolidating worksheets
 - data sources, 511
 - examples, 505
 - by using Consolidate command, 507–511
 - by using formulas, 505–506
 - by using Paste Special, 506–507
- constants
 - names, 199
 - selecting, 76
 - smoothing constant, 671
- constraints, setting, 654–655
- contextual tabs, 10–11
- contiguous ranges, 73
- continuous compounding, 307
- contracting a multicell array formula, 322
- control structures
 - For-Next loop, 699–700
 - If-Then construct, 699
 - Select Case construct, 700
 - With-End With construct, 700
- controls
 - ActiveX controls, 734
 - Chart Element control, 383–384
 - CheckBox, 735, 739
 - ComboBox, 735, 740
 - CommandButton, 735, 740
 - design mode, 736
 - Form controls, 734
 - Image, 735, 741
 - inserting, 733–736
 - Label, 735, 741
 - linking to cells, 738
 - ListBox, 735, 741
 - listing, 735
 - macros, 738–739
 - OptionButton, 735, 741–742
 - properties, 736–738
 - Scenarios, 646
 - ScrollBar, 735, 742
 - SpinButton, 735, 743
 - testing, 736
 - TextBox, 735, 743–744
 - ToggleButton, 735, 744
 - user input, 733
 - UserForms, 721–723, 733–734
- CONVERT function, 788
- converting
 - formulas to values, 204
 - nondate string to a date, 233
 - ranges into tables, 95–98
 - tables into ranges, 107

- times
 - decimal hours, minutes, or seconds to a time, 246
 - military time into regular time, 246
- workbooks into add-ins, 771–774
- copying
 - chart formatting, 390
 - charts, 361
 - conditional formatting, 439
 - data between applications, 521–522
 - Excel to Word, 522–523
 - formatting, 122
 - formulas, 204
 - pictures, 456–457
 - pivot tables, 602
 - ranges, 78–83, 758–759
 - worksheets, 59
- copyright restrictions on graphics files, 454
- corporate networks, 531
- CORREL function, 795
- correlation, 670
- COS function, 793
- COSH function, 793
- COUNT function, 250, 795
- COUNTA function, 250, 795
- COUNTBLANK function, 250, 795
- COUNTIF function, 250, 254–255, 259, 795
- COUNTIFS function, 34, 180, 250, 795
- counting formulas
 - And criterion, 256–257
 - blank cells, 252
 - cells by using multiple criteria, 255
 - characters in a range, 327–328
 - characters in a text string, 214
 - defined, 249
 - error values in a range, 253–254
 - frequency distributions, 260–264
 - logical values, 253
 - most frequently occurring entry, 257–258
 - nonblank cells, 253
 - nontext cells, 253
 - number of error values in a range, 334
 - number of unique values, 260
 - number of words in a cell, 220–221
 - numeric cells, 253
 - occurrences of a substring in a cell, 217–218
 - occurrences of specific text, 258–260
 - Or criterion, 257
 - quick counts, 251
 - selected cells, 763–764
 - specific characters in a cell, 217
 - text cells, 253
 - text cells in a range, 329–330
 - total number of cells, 252, 254–255
- COUPDAYBS function, 789
- COUPDAYS function, 789
- COUPDAYSNC function, 789
- COUPNCD function, 789
- COUPNUM function, 789
- COUPPCD function, 789
- COVAR function, 795
- covariance, 670
- cracking passwords, 539
- Create Names From Selection dialog box, 88–89
- Create New Data Source dialog box, 579–580
- Create PivotTable dialog box, 595–596
- Create Table dialog box, 21, 97–98
- creating
 - add-ins, 773–774
 - chart templates, 390, 410–411
 - charts, 21–22, 355–356
 - data sources, 579–580
 - data tables, 637
 - drop-down lists, 484–485
 - frequency distributions, 260–264, 616–618
 - function procedures, 686, 704–706
 - histograms, 212–213
 - HTML files, 514–515
 - macros, 687–689
 - named arrays, 319–320
 - named ranges, 87–89
 - named styles, 124–125
 - named views, 172
 - ordinal numbers, 220
 - outlines, 491–496
 - pivot charts, 626
 - pivot tables, 595–597
 - queries, 581–584, 587–588
 - Shapes, 442
 - tables, 21–22, 95–98
 - templates, 149–153
 - UserForms, 720–721, 724–725, 727–728
 - Web queries, 518–519
 - workbooks, 19, 131–132
 - worksheets, 19–20
- credit-card numbers, 36
- credit-card payment calculations, 296–297
- CRITBINOM function, 795
- criteria for data validation, 482–483
- CUBEKPIMEMBER function, 786
- CUBEMEMBER function, 786
- CUBEMEMBERPROPERTY function, 786
- CUBERANKEDMEMBER function, 786
- CUBESET function, 786
- CUBESETCOUNT function, 786
- CUBEVALUE function, 786
- CUMIPMT function, 789
- CUMPRINC function, 789
- cumulative sums, 266–267

- currency
 - Currency data type (VBA), 768
 - Euro Currency Tools add-in, 773
 - number formats, 50
 - current date, displaying, 231
 - current time, displaying, 242
 - custom error bars, 404
 - custom number formatting, 51, 468–477
 - custom table styles, 99–100
 - custom templates, 149–153
 - custom views, 171–172
 - Custom Views dialog box, 172
 - customizing
 - Quick Access Toolbar, 14–15, 461–464
 - SmartArt, 449–450
 - table styles, 99
 - themes, 128–129
- ## D
- Daily Dose of Excel blog, 814
 - damping factor, 671
 - Data Analysis dialog box, 668
 - data bars conditional formatting, 423, 425–427
 - data entry
 - arrow keys, 42
 - AutoComplete feature, 43–45
 - AutoFill feature, 43
 - automatically moving the cell pointer, 41–42
 - date-stamp, 46
 - decimal points, 42–43
 - forcing text to appear on a new line within a cell, 44
 - forms, 45–46
 - fractions, 45
 - functions, 186
 - placing information into multiple cells simultaneously, 42
 - selecting range of input cells, 42
 - shortcuts, 44–45
 - step-by-step example, 19–21
 - time-stamp, 46
 - data labels (charts), 354, 401–402
 - data points (charts)
 - defined, 354
 - missing data, 402–403
 - data series (charts)
 - adding, 398–399
 - callouts, 389–390
 - changing data, 399–401
 - defined, 352–354
 - deleting, 398
 - editing, 389, 399–401
 - legend, 352, 354, 389
 - selecting, 398
 - data sharing
 - copying and pasting, 521–522
 - destination application, 521–522
 - Excel to Word, 522–526
 - Object Linking and Embedding (OLE), 526–527
 - source application, 521–522
 - data sources
 - choosing, 579–581
 - creating, 580
 - listing, 579
 - pivot tables, 598
 - Data tab (Ribbon), 9
 - Data Table dialog box, 300, 638–639
 - data tables. *See also* tables
 - charts, 409–410
 - creating, 637
 - defined, 637
 - one-input data table, 299–300, 637–640
 - two-input data table, 300–301, 640–642
 - data types
 - formulas
 - defined, 36–37
 - entering, 176, 181–183
 - numerical values
 - dates, 38–39
 - defined, 35–36
 - entering, 37
 - times, 38–39
 - text
 - defined, 36
 - entering, 37–38
 - VBA, 768–769
 - data validation
 - cell references, 485–487
 - criteria, 482–483
 - defined, 481–482
 - drop-down lists, 484–485
 - examples, 487–489
 - formulas, 485–489
 - invalid data, 483–484
 - limitations of, 481
 - pastings criteria, 85
 - Data Validation dialog box, 482–483
 - databases
 - Access, importing, 576–578
 - external database files
 - accessing, 575
 - defined, 576
 - formatting, 588
 - pivot tables, 594–595
 - fields, 576
 - OLAP Cube, 576
 - Open DataBase Connectivity (ODBC), 576
 - pivot tables
 - calculations, 600
 - column labels, 598
 - copying, 602
 - creating, 595–597

- data sources, 598
- defined, 591
- editing, 601–602
- examples, 592–594, 602–607
- external database files, 594–595
- formatting, 599
- grand totals, 598
- groups, 598
- items, 598
- layout, 597
- modifying, 601–602
- new features, 33, 592
- refreshing, 591, 598
- row labels, 598
- specifying location of, 596
- styles, 599
- subtotals, 598
- table filters, 599
- updating, 591, 598
- value areas, 599
- queries
 - creating, 581–584, 586–588
 - defined, 576
 - deleting, 586
 - editing, 586
 - examples, 578–579, 582–584
 - external data ranges, 585–586
 - Microsoft Query, 578–580
 - multiple database tables, 588
 - Query Wizard, 581, 583–584
 - refreshing, 585–586
 - relational databases, 588
 - result sets, 576, 584
- records
 - adding, 588
 - defined, 576
 - editing, 588
- refreshing, 576
- relational databases, 576, 588
- SQL (Structured Query Language), 576
- tables, 576
- Date data type (VBA), 768
- DATE function, 230, 787
- Date number formats, 50, 477
- DATEDIF function, 236
- dates
 - AutoFill feature, 232
 - calculating
 - number of days between two dates, 233–234
 - number of work days between two dates, 234–235
 - number of years between two dates, 235
 - person's age, 236
 - converting nondate string to a date, 233
 - current date, displaying, 231
 - date-stamp, 46
 - determining
 - date of the most recent Sunday, 237
 - dates of holidays, 238–240
 - date's quarter, 241
 - day of the week, 237
 - day of the year, 237
 - first day of the week after a date, 237–238
 - last day of a month, 240
 - nth occurrence of a day of the week in a month, 238
 - whether a year is a leap year, 241
 - displaying, 231–232
 - entering
 - acceptable formats, 224–225
 - into header or footer, 167
 - into worksheets, 38–39
 - formatting, 228–229
 - generating a series of dates, 232–233
 - inconsistent entries, 230
 - leap year bug, 229
 - 1900 date system, 224
 - 1904 date system, 224
 - numerical values, 38–39
 - offsetting a date using only work days, 234–235
 - pre-1900 dates, 229–230
 - searching, 226
 - serial numbers, 223–224
 - short date format, 224
 - supported dates, 223–224
 - United States English date format, 223
- DATEVALUE function, 230, 787
- DAVERAGE function, 786
- David McRitchie's Excel Pages Web site, 814
- DAY function, 230, 787
- DAYS360 function, 230, 787
- DB function, 310, 789
- DCOUNT function, 250, 786
- DCOUNTA function, 250, 786
- DDB function, 310, 789
- Deactivate event
 - workbooks, 747
 - worksheets, 751
- debugging function procedures (VBA), 711
- DEC2BIN function, 788
- DEC2HEX function, 788
- DEC2OCT function, 788
- Decimal data type (VBA), 768
- decimal points, 42–43
- declaring variable types, 768–769
- default templates, 149–151
- defining scenarios, 643–644
- DEGREES function, 793
- deleting. *See also* removing
 - chart elements, 361–362
 - charts, 361
 - columns from tables, 101

- deleting (*continued*)
 - columns (worksheets), 67
 - comments, 93
 - conditional formatting, 439–440
 - contents of cells, 39–40
 - data series (charts), 398
 - information, 568
 - legend (charts), 389
 - named ranges, 90
 - named views, 172
 - nonprinting characters, 214
 - outlines, 494, 496
 - queries, 586
 - rows from tables, 101, 103–104
 - rows (worksheets), 67
 - spacing, 214
 - text, 568
 - worksheets, 57
 - DELTA function, 788
 - demo versions of software, 800
 - depreciation calculations, 310–312
 - descriptive statistics, 670–671
 - design mode, 736
 - designating
 - trusted folders, 683
 - workbooks as shared, 534
 - destination application, 521–522
 - Developer tab, 9, 681–682
 - DEVSQ function, 250, 795
 - DGET function, 786
 - diagrams. *See* SmartArt
 - dialog boxes, 15–18. *See also* UserForms
 - dialog launcher, 12
 - digital signatures, 140, 548–549
 - dimensions of tables, 98
 - direct cell dependents, 563
 - direct cell precedent, 562
 - direction keys, 7–8
 - disabling macros, 34, 683
 - DISC function, 789
 - display screen, 4–6
 - displaying
 - Add-In Manager, 772
 - calendar in a range, 347–348
 - comments, 91, 93
 - current date, 231
 - current time, 242
 - dates, 231–232
 - formulas, 562
 - result sets, 584
 - scenarios, 645
 - times, 242
 - UserForms, 724, 728–729
 - #DIV/0! error value, 554–555
 - division (/) operator, 176
 - DMAX function, 786
 - DMIN function, 786
 - Document Inspector, 140, 547–548
 - Document Inspector dialog box, 140
 - document themes
 - applying, 126–128
 - colors, 129
 - customizing, 128–129
 - defined, 28, 126
 - fonts, 128–129
 - SmartArt, 452
 - tables, 98
 - DOLLAR function, 212, 797
 - DOLLARDE function, 789
 - DOLLARFR function, 789
 - Double data type (VBA), 768–769
 - doughnut charts, 374
 - downloading
 - add-ins, 773
 - IrfanView graphics file viewer, 454
 - templates, 146
 - DPRODUCT function, 786
 - draw layer
 - defined, 4, 35, 443
 - Shapes, 441, 443
 - drawing borders, 119
 - drop-down lists, 484–485
 - DSTDEV function, 786
 - DSTDEVP function, 786
 - DSUM function, 250, 786
 - duplicate rows in tables, deleting, 103–104
 - DURATION function, 789
 - DVAR function, 786
 - DVARP function, 786
 - dynamic models, 635
- ## E
- eBook version of *Excel 2007 Bible*, 800
 - EDATE function, 231, 787
 - Edit Criteria dialog box, 587
 - Edit Links dialog box, 502–504, 560
 - edit mode, 40–41
 - Edit Scenario dialog box, 645
 - Edit Series dialog box, 389, 400–401
 - editing. *See also* modifying
 - accepting changes, 538
 - array formulas, 321–322
 - change history, 535
 - code, 694
 - comments, 93
 - contents of cells, 40–41
 - data series (charts), 389, 399–401
 - formulas, 187
 - links, 560
 - macros, 689–690

- named ranges, 90
- pivot tables, 601–602
- queries, 586
- records in databases, 588
- rejecting changes, 538
- scenarios, 645
- tracking changes, 535–538
- EFFECT function, 789
- element codes for headers and footers, 167
- embedded charts, 353
- embedding
 - objects, 527
 - Word documents in workbooks, 526–527
 - workbooks in Word documents, 527–530
- embedding objects, 526
- Enable Iterative Calculation setting feature, 197
- Encrypt Document dialog box, 543–544
- encrypting workbooks, 140, 543–544
- engineering functions, 787–788
- entering
 - array formulas, 320–321
 - dates, 224–225
 - text, 205
 - times, 227–228
- entering data
 - arrow keys, 42
 - AutoComplete feature, 43–45
 - AutoFill feature, 43
 - automatically moving the cell pointer, 41–42
 - date-stamp, 46
 - decimal points, 42–43
 - forcing text to appear on a new line within a cell, 44
 - forms, 45–46
 - formulas, 176, 181–183
 - fractions, 45
 - functions, 186
 - numerical values, 37
 - placing information into multiple cells simultaneously, 42
 - selecting range of input cells, 42
 - shortcuts, 44–45
 - step-by-step example, 19–21
 - text, 37–38
 - time-stamp, 46
- entering VBA code, 694–695
- EOMONTH function, 231, 787
- equal to (=) operator, 176
- erasing. *See* deleting
- ERF function, 788
- ERFC function, 788
- error bars in charts, 403–404
- Error Checking dialog box, 564–566
- ERROR.TYPE function, 791
- errors in formulas
 - absolute/relative reference problems, 556–557
 - actual versus displayed values, 558
 - array formulas, 552
 - background error-checking feature, 564–566
 - blank cells, 553
 - circular references, 552, 564
 - error values
 - defined, 196
 - #DIV/0!, 554–555
 - hash marks (#), 195, 552
 - #N/A, 555
 - #NAME?, 555
 - #NULL!, 555–556
 - #NUM!, 556
 - printing, 554
 - #REF!, 556
 - ripple effect, 195
 - tracing, 554, 564
 - #VALUE!, 556
 - extra space characters, 553
 - floating point numbers, 559
 - incomplete calculation errors, 552
 - incorrect reference errors, 551
 - logical errors, 551
 - mismatched parentheses, 552
 - operator precedence, 557–558
 - phantom links, 560
 - semantic errors, 551
 - syntax errors, 551–553
- Euro Currency Tools add-in, 773
- Evaluate Formula dialog box, 566
- evaluating formulas, 342, 566
- evaluation versions of software, 800
- EVEN function, 793
- events
 - code modules, 745–747, 750
 - non-object events
 - OnKey, 754–755
 - OnTime event, 754
 - types of, 745
 - UserForms, 723, 726, 729–730
 - workbooks
 - Activate, 747
 - AddinInstall, 747
 - AddinUninstall, 747
 - BeforeClose, 747, 750
 - BeforePrint, 747
 - BeforeSave, 747, 750
 - Deactivate, 747
 - NewSheet, 747, 749
 - Open, 748–749
 - SheetActivate, 748–749
 - SheetBeforeDoubleClick, 748
 - SheetBeforeRightClick, 748
 - SheetCalculate, 748
 - SheetChange, 748
 - SheetDeactivate, 748

- events, workbooks (*continued*)
 - SheetFollowHyperlink, 748
 - SheetSelectionChange, 748
 - WindowActivate, 748
 - WindowDeactivate, 748
 - WindowResize, 748
 - worksheets
 - Activate, 751
 - BeforeDoubleClick, 751
 - BeforeRightClick, 751, 753
 - Calculate, 751
 - Change, 751–752
 - Deactivate, 751
 - FollowHyperlink, 751
 - PivotTableUpdate, 751
 - SelectionChange, 751–753
 - EXACT function, 210, 797
 - Excel 2007
 - closing, 6
 - new features, 25–34
 - official home page, 811
 - screen display, 4–6
 - starting without an empty workbook, 133
 - user interface, 25–26
 - uses, 3
 - Excel 2007 Bible eBook version, 800
 - Excel 2007 Power Programming with VBA (Wiley Publishing, Inc.), 694
 - Excel Options dialog box, 15, 31, 136
 - Excel Services, 33
 - Excel12.ribbonx file, 464
 - excluding headers and footers from first page, 168
 - executing
 - function procedures, 685, 706–707
 - macros, 731
 - Sub procedures, 685
 - EXP function, 793
 - expanding
 - multicell array formula, 322
 - outlines, 496
 - experimentation with charts, 398
 - exploding pie charts, 370–371
 - EXPONDIST function, 795
 - exponential smoothing, 671
 - exponentiation (^) operator, 176
 - exporting graphics, 448
 - External Data Properties dialog box, 585
 - External Data Range Properties dialog box, 519–520
 - external data ranges, 585–586
 - external database files
 - accessing, 575
 - defined, 576
 - formatting, 588
 - pivot tables, 595
 - external reference formulas, 500–505
 - extra space characters, 553
 - extracting
 - all but the first word of a string, 219
 - characters from a text string, 215
 - filename from a path specification, 218
 - first word of a text string, 218
 - last word of a text string, 218–219
 - names, 219–220
- ## F
- FACT function, 793
 - FACTDOUBLE function, 793
 - FALSE function, 791
 - FDIST function, 795
 - fields (databases), 576
 - file extensions, 4
 - file formats supported, 27
 - File In Use dialog box, 532
 - file name, 167
 - File Now Available dialog box, 533
 - file path, 167
 - file reservation, 532–533
 - file sharing, 532–533
 - files
 - Excel12.ribbonx, 464
 - external database files
 - accessing, 575
 - defined, 576
 - formatting, 588
 - pivot tables, 594–595
 - graphics files, 453–454
 - HTML files, 513–516
 - PDF file, 546–547
 - template files, 148
 - workbook files
 - AutoRecover feature, 136
 - backups, 136–137, 141–142
 - closing, 141
 - Compatibility Checker, 140–141
 - Compatibility Pack, 142–143
 - creating, 131–132
 - digital signatures, 140
 - Document Inspector, 140
 - encrypting, 140
 - file formats, 142
 - finalizing, 140
 - naming, 137
 - opening, 132–135
 - password-protection, 137–138
 - permissions, 140
 - properties, 139
 - read-only, 532–533
 - samples on CD-ROM, 800–806
 - saving, 136, 143
 - XPS file, 547

- filling cells with repeating characters, 479
- filtering
 - named ranges, 90
 - names, 560
 - table data, 104, 106–107
- finalizing workbooks, 140, 547
- financial formulas
 - credit-card payments, 296–297
 - depreciation, 310–312
 - investment calculations, 305–306
 - investments, 303–304, 307–309
 - loans, 292–301, 303
 - time value of money, 291–292
- financial functions, 789–790
- Find And Replace dialog box, 567–569
- Find Format dialog box, 569
- FIND function, 216, 797
- Find What text box, 567
- finding
 - cells of a particular type, 77–78, 560–561
 - clip art, 454–455
 - conditional formatting, 440
 - formatting, 568–569
 - information, 567–568
 - row of a value's nth occurrence in a range, 338
 - spelling errors, 569–570
 - text, 216, 567–568
- FINV function, 795
- First Column, 102
- FISHER function, 795
- FISHERINV function, 795
- FIXED function, 797
- fixed value error bars, 403
- fixing circular references, 564
- floating point number errors, 559
- FLOOR function, 793
- folders, trusted, 683
- FollowHyperlink event, 751
- fonts
 - applying to ranges, 114–115
 - changing, 113
 - default font, 112
 - defined, 112
 - new fonts for Excel 2007, 26, 113
 - sizes, 112–113
 - styles, 113–114
 - symbols, 209
 - themes, 128–129
- footers
 - adjusting distance from the bottom of the page, 162
 - aligning with margins, 168
 - date, 167
 - different footers for odd/even pages, 168
 - element codes, 167
 - excluding from first page, 168
- file name, 167
- file path, 167
- formatting, 167
- inserting, 166–167
- multiline, 167
- page numbers, 167
- pictures, 167
- predefined, 166
- scaling, 168
- time, 167
- forcing
 - numbers to be treated as actual numbers, 206
 - page breaks, 162
 - recalculation of formulas, 558
 - text to appear on a new line within a cell, 44
- FORECAST function, 795
- Form controls, 734
- Format Axis dialog box, 362
- Format Cells dialog box, 49–50, 112, 467–468, 541
- Format Comment dialog box, 91
- Format Data Labels dialog box, 402
- Format dialog box, 384–386
- Format Error Bars dialog box, 403
- Format Painter button, 122
- formatting
 - background images, 121–122, 163, 457
 - borders
 - animated border around ranges, 79
 - applying, 119–121
 - colors, 119
 - drawing, 119
 - styles, 119–120
 - chart elements, 362
 - charts, 390
 - comments, 91
 - conditional formatting
 - alternate-row shading, 436–437
 - applying, 422–423
 - checkerboard shading, 437
 - clearing, 439–440
 - color scales, 423, 428–430
 - copying, 439
 - data bars, 423, 425–427
 - defined, 421–422
 - deleting, 439–440
 - finding, 440
 - formulas, 434–438
 - highlight cell rules, 422
 - icon sets, 423, 430–433
 - new features, 30, 423
 - replacing, 440
 - rule management, 439
 - rules, 423–425
 - top bottom rules, 423

- formatting (*continued*)
 - copying, 122
 - dates, 228–229
 - external database files, 588
 - finding, 568–569
 - fonts
 - applying to ranges, 114–115
 - changing, 113
 - default font, 112
 - defined, 112
 - new fonts for Excel 2007, 26, 113
 - sizes, 112–113
 - styles, 113–114
 - footers, 167
 - headers, 167
 - multiple formatting styles in a single cell, 115
 - named styles
 - applying, 123
 - attributes of, 122–123
 - creating, 124–125
 - merging, 125
 - modifying, 124
 - numbers
 - Accounting format, 50
 - automatically, 47–48, 466
 - calculations, 50
 - Currency format, 50
 - custom, 51, 468–477
 - Date formats, 50, 477
 - Format Cells dialog box, 49–50, 467–468
 - Fraction format, 51
 - fractions, 476
 - General format, 50, 465
 - hiding entries, 478–479
 - keyboard shortcuts, 48, 467
 - leading zeros, 475
 - negative sign (-), 476–477
 - Number format, 50
 - number format string, 469–471
 - Percentage format, 50
 - readability, 21, 47
 - Ribbon, 48, 466
 - Scientific format, 51
 - Special format, 51
 - Text format, 51, 478
 - TEXT function, 478
 - Time formats, 50, 477
 - pasting, 85
 - pivot charts, 33
 - pivot tables, 599
 - replacing, 569
 - Shapes, 445
 - shortcut keys, 818
 - tables, 98–99, 102, 119
 - templates, 125–126
 - text alignment, 115–116
 - themes
 - applying, 126–128
 - colors, 129
 - customizing, 128–129
 - defined, 28, 126
 - fonts, 128–129
 - SmartArt, 452
 - tables, 98
 - times, 228–229
 - worksheets, 21–22
- formatting tools
 - Format Cells dialog box, 112
 - Home Tab, 110
 - Mini toolbar, 110–111
- forms
 - data entry, 45–46
 - UserForms
 - accelerator keys, 732
 - alternatives, 716–720
 - controls, 721–723, 733–734
 - creating, 720–721, 724–725, 727–728
 - displaying, 724, 728–729
 - event handling, 723, 726, 729–730
 - examples, 724–731
 - help, 723, 732
 - tab order, 732
 - testing, 725–726, 728, 730–731
 - uses, 715–716
- Formula AutoComplete feature, 32, 181–183
- Formula AutoCorrect feature, 178–179, 553
- Formula bar
 - calculations, 203
 - defined, 6
 - edit mode, 40–41
 - formula display, 176
 - resizing, 34
 - shortcut keys, 817–818
- Formula Evaluator, 342, 566
- formulas
 - array formulas
 - advantages, 322
 - array constant elements, 317
 - array constants, 316–317
 - contracting multicell array formula, 322
 - defined, 313
 - disadvantages, 322
 - editing, 321–322
 - eliminating intermediate formulas, 330–331
 - entering, 320–321
 - errors, 552
 - expanding a multicell array formula, 322
 - Formula Evaluator, 342
 - functions, 325–327
 - multicell, 314–315, 323–327

- range references, 331–332
- ranking data, 344–345
- selecting an array formula range, 321
- single-cell, 315–316, 327–330
- Automatic Calculation mode, 198
- cell dependents, 563–564
- cell precedents, 562–563
- cell references, 187–191, 202–203
- circular references, 196–197, 552, 564
- conditional formatting, 434–438
- converting to values, 204
- copying, 204
- counting formulas
 - AND criterion, 256–257
 - blank cells, 252
 - cells by using multiple criteria, 255
 - characters in a range, 327–328
 - characters in a text string, 214
 - defined, 249
 - error values in a range, 253–254
 - frequency distributions, 260–264
 - logical values, 253
 - most frequently occurring entry, 257–258
 - nonblank cells, 253
 - nontext cells, 253
 - number of error values in a range, 334
 - number of unique values, 260
 - number of words in a cell, 220–221
 - numeric cells, 253
 - occurrences of a substring in a cell, 217–218
 - occurrences of specific text, 258–260
 - OR criterion, 257
 - quick counts, 251
 - selected cells, 763–764
 - specific characters in a cell, 217
 - text cells, 253
 - text cells in a range, 329–330
 - total number of cells, 252, 254–255
- data validation, 485–489
- defined, 36–37, 175
- displaying, 562
- dynamic models, 635
- editing, 187
- elements of, 175
- entering, 176, 181–183
- error values
 - defined, 196
 - #DIV/0!, 554–555
 - hash marks (#), 195, 552
 - #N/A, 555
 - #NAME?, 555
 - #NULL!, 555–556
 - #NUM!, 556
 - printing, 554
 - #REF!, 556
 - ripple effect, 195
 - tracing, 554, 564
 - #VALUE!, 556
- errors
 - absolute/relative reference problems, 556–557
 - actual versus displayed values, 558
 - Array formulas, 552
 - background error-checking feature, 564–566
 - blank cells, 553
 - circular references, 196–197, 552, 564
 - extra space characters, 553
 - floating point numbers, 559
 - incomplete calculation errors, 552
 - incorrect reference errors, 551
 - logical errors, 551
 - mismatched parentheses, 552
 - operator precedence, 557–558
 - phantom links, 560
 - semantic errors, 551
 - syntax errors, 551–553
- evaluating, 342, 566
- examples of, 176
- external reference formulas, 500–505
- financial formulas
 - credit-card payments, 296–297
 - depreciation, 310–312
 - investments, 303–309
 - loans, 292–301, 303
 - time value of money, 291–292
- Formula bar, 176
- functions, 179–180, 184–186
- hard-coded values, 203, 636
- locking formula cells, 152
- lookup formulas
 - case-sensitive lookup, 282–283
 - CHOOSE function, 274, 792
 - closest match values, 288–289
 - defined, 273–274
 - determining the cell address of a value within a range, 287–288
 - exact values, 280–281
 - grade-point average (GPA), 284–285
 - HLOOKUP function, 274, 277, 792
 - IF function, 274–275, 791
 - IFERROR function, 34, 180, 274, 555, 791
 - INDEX function, 274, 278–280, 792
 - letter grades for test scores, 283–284
 - LOOKUP function, 275, 277–278, 792
 - MATCH function, 275, 278, 792
 - multiple lookup tables, 283
 - OFFSET function, 275, 792
 - two-column lookups, 286–287
 - two-way lookups, 285–286
 - value to the left, 281–282
 - VLOOKUP function, 275–277, 792

- formulas (*continued*)
 - Manual Calculation mode, 198
 - names, 199–200
 - naming techniques, 199–203
 - operator precedence, 177–179, 557
 - operators, 176–177
 - pasting, 85–86
 - range intersections, 200–202
 - ranges, 183–184
 - recalculating, 558
 - selecting, 76
 - summing formulas
 - all cells in a range, 265–266
 - And criteria, 271–272
 - conditional sums, 268–271
 - cumulative sums, 266–267
 - defined, 249
 - digits of an integer, 339–340
 - every nth value in a range, 341–342
 - n largest values in a range, 335
 - negative values, 269
 - Or criteria, 272
 - quick sums, 251
 - range that contains errors, 333–334
 - rounded values, 340–341
 - three smallest values in a range, 328–329
 - times that exceed 24 hours, 244–245
 - “top n” values, 268
 - values based on a date comparison, 270
 - values based on a different range, 269
 - values based on a text comparison, 269
 - tables, 191–195
 - values, 85
 - viewing, 562
 - what-if analysis
 - data tables, 637–642
 - defined, 635, 649
 - examples, 635–636
 - goal seeking, 649–652
 - manual, 637
 - Scenario Manager, 643–647
 - Solver, 649, 652–666, 773
- Formulas tab (Ribbon), 9
- For-Next loop, 699–700
- Fourier analysis, 672
- Fraction format, 51
- fractions, 45, 476
- Freeform Shape, 446–447
- freeware programs, 800
- freezing panes, 64–65
- frequency distribution, 260–264, 616–618
- FREQUENCY function, 250, 261–262, 795
- Frontline Systems Web site, 662
- F-Test, 671–672
- FTEST function, 795
- Full Screen mode, 461
- Function Arguments dialog box, 185–186, 712–713
- function keys, 820–821
- function procedures (VBA)
 - arguments, 707–711
 - creating, 686, 704–706
 - debugging, 711
 - defined, 685
 - executing, 685, 706–707
 - inserting, 712–713
 - uses, 703
 - values, 705–706
- functions
 - ABS, 792
 - ACCRINT, 789
 - ACCRINTM, 789
 - ACOS, 792
 - ACOSH function, 792
 - ADDRESS, 792
 - AMORDEGRC, 789
 - AMORLINC, 789
 - AND, 791
 - AREAS, 792
 - arguments, 180–181, 185–186
 - array formulas, 325–327
 - ASIN, 792
 - ASINH, 792
 - ATAN, 792
 - ATAN2, 792
 - ATANH, 792
 - AVEDEV, 794
 - AVERAGE, 794
 - AVERAGEA, 794
 - AVERAGEIF, 34, 180, 794
 - AVERAGEIFS, 34, 180, 794
 - BAHTTEXT, 797
 - BESSELI, 787
 - BESSELJ, 787
 - BESSELK, 787
 - BESSELY, 787
 - BETADIST, 794
 - BETAINV, 794
 - BIN2DEC, 787
 - BIN2HEX, 787
 - BIN2OCT, 788
 - BINOMDIST, 794
 - CEILING, 792
 - CELL, 791
 - CHAR, 207–210, 797
 - CHIDIST, 794
 - CHIINV, 794
 - CHITEST, 794
 - CHOOSE, 274, 792
 - CLEAN, 214, 797
 - CODE, 207–208, 797

- COLUMN, 792
- COLUMNS, 792
- COMBIN, 793
- COMPLEX, 788
- CONCATENATE, 797
- CONFIDENCE, 795
- CONVERT, 788
- CORREL, 795
- COS, 793
- COSH, 793
- COUNT, 250, 795
- COUNTA, 250, 795
- COUNTBLANK, 250, 795
- COUNTIF, 250, 254–255, 259, 795
- COUNTIFS, 34, 180, 250, 795
- COUPDAYBS, 789
- COUPDAYS, 789
- COUPDAYSNC, 789
- COUPNCD, 789
- COUPNUM, 789
- COUPPCD, 789
- COVAR, 795
- CRITBINOM, 795
- CUBEKPIMEMBER, 786
- CUBEMEMBER, 786
- CUBEMEMBERPROPERTY, 786
- CUBERANKEDMEMBER, 786
- CUBESET, 786
- CUBESETCOUNT, 786
- CUBEVALUE, 786
- CUMIPMT, 789
- CUMPRINC, 789
- DATE, 230, 787
- DATEDIF, 236
- DATEVALUE, 230, 787
- DAVERAGE, 786
- DAY, 230, 787
- DAYS360, 230, 787
- DB, 310, 789
- DCOUNT, 250, 786
- DCOUNTA, 250, 786
- DDB, 310, 789
- DEC2BIN, 788
- DEC2HEX, 788
- DEC2OCT, 788
- DEGREES, 793
- DELTA, 788
- DEVSQ, 250, 795
- DGET, 786
- DISC, 789
- DMAX, 786
- DMIN, 786
- DOLLAR, 212, 797
- DOLLARDE, 789
- DOLLARFR, 789
- DPRODUCT, 786
- DSTDEV, 786
- DSTDEVP, 786
- DSUM, 250, 786
- DURATION, 789
- DVAR, 786
- DVARP, 786
- EDATE, 231, 787
- EFFECT, 789
- entering, 186
- EOMONTH, 231, 787
- ERF, 788
- ERFC, 788
- ERROR.TYPE, 791
- EVEN, 793
- EXACT, 210, 797
- EXP, 793
- EXPONDIST, 795
- FACT, 793
- FACTDOUBLE, 793
- FALSE, 791
- FDIST, 795
- FIND, 216, 797
- FINV, 795
- FISHER, 795
- FISHERINV, 795
- FIXED, 797
- FLOOR, 793
- FORECAST, 795
- formulas, 179–180, 184–186
- FREQUENCY, 250, 261–262, 795
- FTEST, 795
- FV, 789
- FVCHEDULE, 789
- GAMMADIST, 795
- GAMMAINV, 795
- GAMMALN, 795
- GCD, 793
- GEOMEAN, 795
- GESTEP, 788
- GETPIVOTDATA, 625–626, 792
- GROWTH, 795
- HARMEAN, 795
- help, 785
- HEX2BIN, 788
- HEX2DEC, 788
- HEX2OCT, 788
- HLOOKUP, 274, 277, 792
- hour, 241, 787
- HYPERLINK, 792
- HYPGEOMDIST, 795
- IF, 274–275, 791
- IFERROR, 34, 180, 274, 555, 791
- IMABS, 788
- IMAGINARY, 788

functions (continued)

- IMARGUMENT, 788
- IMCONJUGATE, 788
- IMCOS, 788
- IMDIV, 788
- IMEXP, 788
- IMLN, 788
- IMLOG2, 788
- IMLOG10, 788
- IMPOWER, 788
- IMPRODUCT, 788
- IMREAL, 788
- IMSIN, 788
- IMSQRT, 788
- IMSUB, 788
- INDEX, 274, 278–280, 792
- INDIRECT, 326, 792
- INFO, 791
- inserting, 184–186
- INT, 793
- INTERCEPT, 795
- INTRATE, 789
- IPMT, 294, 789
- IRR, 789
- ISBLANK, 791
- ISERR, 791
- ISERROR, 791
- ISEVEN, 791
- ISLOGICAL, 791
- ISNA, 791
- ISNONTEXT, 791
- ISNUMBER, 791
- ISODD, 791
- ISPMT, 789
- ISREF, 791
- ISTEXT, 207, 791
- KURT, 795
- LARGE, 795
- LCM, 793
- LEFT, 215, 797
- LEN, 214, 797
- LINEST, 795
- LN, 793
- LOG, 793
- LOG10, 793
- LOGEST, 795
- LOGINV, 795
- LOGNORMDIST, 795
- LOOKUP, 275, 277–278, 792
- LOWER, 214, 797
- MATCH, 275, 278, 792
- MAX, 795
- MAXA, 795
- MDETERM, 793
- MDURATION, 789
- MEDIAN, 796
- MID, 215, 797
- MIN, 796
- MINA, 796
- MINUTE, 241, 787
- MINVERSE, 793
- MIRR, 790
- MMULT, 793
- MOD, 793
- MODE, 257–258, 796
- MONTH, 231, 241, 787
- MROUND, 793
- MULTINOMIAL, 793
- N, 791
- NA, 791
- NEGBINOMDIST, 796
- NETWORKDAYS, 231, 787
- new functions in Excel 2007, 34, 180
- NOMINAL, 790
- NORMDIST, 796
- NORMINV, 796
- NORMSINV, 796
- NOT, 791
- NOW, 231, 241, 787
- NPER, 294, 790
- NPV, 790
- OCT2BIN, 788
- OCT2DEC, 788
- OCT2HEX, 788
- ODD, 793
- ODDFPRICE, 790
- ODDFYIELD, 790
- ODDLPRICE, 790
- ODDLYIELD, 790
- OFFSET, 275, 792
- OR, 791
- PEARSON, 796
- PERCENTILE, 796
- PERCENTRANK, 796
- PERMUT, 796
- PI, 793
- PMT, 293, 790
- POISSON, 796
- POWER, 793
- PPMT, 293, 790
- PRICE, 790
- PRICEDISC, 790
- PRICEMAT, 790
- PROB, 796
- PRODUCT, 793
- PROPER, 214, 797
- PV, 294–295, 790
- QUARTILE, 796
- QUOTIENT, 793
- RADIANS, 793

- RAND, 793
 - RANDBETWEEN, 793
 - RANK, 796
 - RATE, 294, 790
 - RECEIVED, 790
 - REPLACE, 216–217, 797
 - REPT, 212–214, 797
 - RIGHT, 215, 797
 - ROMAN, 793
 - ROUND, 793
 - ROUNDDOWN, 793
 - ROUNDUP, 793
 - ROW, 792
 - ROWS, 792
 - RSQ, 796
 - RTD, 792
 - SEARCH, 216–217, 797
 - SECOND, 241, 787
 - SERIESSUM, 793
 - SIGN, 793
 - SIN, 794
 - SINH, 794
 - SKEW, 796
 - SLN, 310, 790
 - SLOPE, 796
 - SMALL, 796
 - SQRT, 794
 - SQRTPI, 794
 - STANDARDIZE, 796
 - STDEV, 796
 - STDEVA, 796
 - STDEVP, 796
 - STDEVPA, 796
 - STEYX, 796
 - SUBSTITUTE, 216–217, 797
 - SUBTOTAL, 250, 794
 - SUM, 250, 794
 - SUMIF, 250, 794
 - SUMIFS, 34, 180, 250, 794
 - SUMPRODUCT, 250, 794
 - SUMSQ, 250, 794
 - SUMX2MY2, 250, 794
 - SUMX2PY2, 250, 794
 - SUMXMY2, 250, 794
 - SYD, 310, 790
 - T, 797
 - TAN, 794
 - TANH, 794
 - TBILLEQ, 790
 - TBILLPRICE, 790
 - TBILLYIELD, 790
 - TDIST, 796
 - TEXT, 211, 478, 797
 - TIME, 241, 787
 - TIMEVALUE, 241, 787
 - TINV, 796
 - TODAY, 231, 787
 - TRANSPOSE, 325–326, 792
 - TREND, 796
 - TRIM, 214, 797
 - TRIMMEAN, 796
 - TRUE, 791
 - TRUNC, 794
 - TTEST, 796
 - TYPE, 791
 - UPPER, 214–215, 797
 - VALUE, 797
 - VAR, 796
 - VARA, 797
 - VARP, 797
 - VARPA, 797
 - VDB, 310, 790
 - VLOOKUP, 275–277, 792
 - WEEKDAY, 231, 787
 - WEEKNUM, 231, 787
 - WEIBULL, 797
 - WORKDAY, 231, 787
 - XIRR, 790
 - XNPV, 790
 - YEAR, 231, 787
 - YEARFRAC, 231, 787
 - YIELD, 790
 - YIELDDISC, 790
 - YIELDMAT, 790
 - ZTEST, 797
 - functions (VBA)
 - function procedures, 703–713
 - InputBox, 716–717
 - MsgBox, 717–720
 - future value
 - of a series of deposits, 307–309
 - of a single deposit, 303–307
 - FV function, 789
 - FVSCHEDULE function, 789
- ## G
- GAMMADIST function, 795
 - GAMMAINV function, 795
 - GAMMALN function, 795
 - Gantt charts, 417–418
 - gauge chart, 413–414
 - GCD function, 793
 - General number format, 50, 465
 - General Options dialog box, 137–138
 - generating
 - arrays of consecutive integers, 326
 - random numbers, 673–674
 - scenario reports, 647
 - series of dates, 232–233
 - GEOMEAN function, 795

- GESTEP function, 788
- GETPIVOTDATA function, 625–626, 792
- GNU software, 800
- Go To dialog box, 553
- Go To Special dialog box, 76, 553, 560–561
- Goal Seek dialog box, 651
- goal seeking
 - defined, 649
 - single-cell goal seeking, 650–651
 - troubleshooting, 651–652
- Google Groups, 811–812
- grade-point average (GPA), 284–285
- grand totals (pivot tables), 598
- graphics. *See also* objects
 - background images, 121–122, 163, 457
 - bitmap images, 453
 - Clip Art task pane, 454–455
 - Clip Organizer, 455
 - conditional formatting
 - color scales, 423, 428–430
 - data bars, 423, 425–427
 - icon sets, 423, 430–433
 - exporting, 448
 - graphics files, 453
 - pictures
 - copying, 456–457
 - footers, 167
 - headers, 167
 - inserting, 455
 - styles, 456
- Shapes
 - aligning, 446
 - arranging, 445
 - charts, 441
 - creating, 442
 - defined, 441
 - draw layer, 441, 443
 - formatting, 445
 - Freeform Shape, 446–447
 - grouping, 446
 - hiding, 443
 - inserting, 441–442
 - printing, 447
 - reshaping, 446
 - resizing, 445
 - rotating, 446
 - selecting, 442
 - spacing, 446
 - text, 444
 - ungrouping, 446
- SmartArt
 - colors, 452
 - customizing, 449–450
 - defined, 31–32
 - inserting, 448–449
 - layout, 450–451
 - selecting, 449
 - styles, 452
 - text, 450
- vector images, 453
- watermarks, 163–164
- WordArt
 - inserting, 452–453
 - selecting, 453
- graphics files, 454
- graphics viewers, 454
- graphs
 - activating, 360
 - area charts, 373
 - axes
 - category axis, 354, 396–397
 - formatting, 362
 - modifying, 391–397
 - value axis, 354, 391–395
 - bar charts, 367–368
 - bubble charts, 377–378
 - callouts, 389
 - chart area
 - defined, 355
 - modifying, 386
 - chart sheets, 4, 353
 - colors, 414–415
 - column charts, 356–357, 365–367, 414–415
 - combination charts, 407–409
 - comparisons, 363
 - copying, 361
 - creating, 21–22, 355–356
 - data labels, 354, 401–402
 - data points
 - defined, 354
 - missing data, 402–403
 - data series
 - adding, 398–399
 - callouts, 389–390
 - changing data, 399–401
 - defined, 352–354
 - deleting, 398
 - editing, 389, 399–401
 - legend, 352, 354, 389
 - selecting, 398
 - data tables, 409–410
 - defined, 351
 - deleting, 361
 - doughnut charts, 374
 - elements
 - adding, 361
 - deleting, 361–362
 - formatting, 362
 - modifying, 384–386
 - moving, 361–362

- resetting formatting, 387
 - selecting, 381–384
- embedded, 353
- error bars, 403–404
- experimentation, 398
- formatting, 390
- Gantt charts, 417–418
- gauge chart, 413–414
- gridlines, 354, 391
- histograms, 212–213, 415–416
- layout, 357–358
- legend, 352, 354, 389
- line charts, 368–370
- mathematical functions, 418–420
- moving, 353, 361
- new features, 28, 351
- picture charts, 411–412
- pie charts, 370–371
- pivot charts
 - creating, 626
 - examples, 627–632
 - formatting, 33
 - reports, 632–634
- plot area
 - defined, 355
 - modifying, 387–388
- printing, 363
- radar charts, 374–376
- resizing, 361
- scale values, 354
- Shapes, 441
- stock charts, 379–380
- styles, 360
- surface charts, 377
- templates
 - applying, 410–411
 - creating, 390, 410–411
- text, 388
- thermometer chart, 412–413
- 3-D, 406–407
- titles, 354, 358, 388
- trendlines, 404–405
- types
 - changing, 358–359, 365
 - choosing, 356–357, 363–364
 - layout, 358
 - layouts, 357
- uses, 351–352
- VBA, 765–766
- XY (scatter) charts, 371–372

greater than (>) operator, 176

greater than or equal to (>=) operator, 176

gridlines

- charts, 354, 391
- printing, 165

grouping

- pivot table items, 611–616
- Shapes, 446

Grouping dialog box, 612–614

groups (pivot tables), 598

GROWTH function, 795

H

handling events in UserForms, 723, 726, 729–730

hard-coded values in formulas, 203, 636

HARMEAN function, 795

hash mark (#), denoting error values, 195, 552

Header Row, 101–102

headers

- adjusting distance from top of page, 162
- aligning with margins, 168
- date, 167
- different headers for odd/even pages, 168
- element codes, 167
- excluding from first page, 168
- file name, 167
- file path, 167
- formatting, 167
- inserting, 166–167
- multiline, 167
- page numbers, 167
- pictures, 167
- predefined, 166
- scaling, 168
- time, 167

height of rows, changing in worksheet, 68–69

Height property, 738

help

- Excel 2007, 809–810
- functions, 785
- UserForms, 723, 732
- VBA, 757

HEX2BIN function, 788

HEX2DEC function, 788

HEX2OCT function, 788

hiding

- cell contents, 478–479
- columns (worksheets), 67–68
- comments, 93
- contents of cells, 119
- Mini toolbar, 14, 111
- objects, 444
- outline symbols, 494, 497
- Ribbon, 10
- rows (worksheets), 67–68
- scenarios, 645
- Shapes, 443
- worksheets, 59–60

highlight cell rules conditional formatting, 422

- Highlight Changes dialog box, 536–537
 - histograms, 212–213, 415–416, 672
 - HLOOKUP function, 274, 277, 792
 - holidays, determining dates of, 238–240
 - Home tab
 - defined, 9–10
 - formatting tools, 110
 - horizontal scrollbar, 6
 - hot keys, 16
 - HOUR function, 241, 787
 - HTML files, 513–516
 - HYPERLINK function, 792
 - hyperlinks, 516–518
 - HYPGEOMDIST function, 795
- I**
- icon sets conditional formatting, 423, 430–433
 - identifying a multiple selection, 763
 - IF function, 274–275, 791
 - IFERROR function, 34, 180, 274, 555, 791
 - If-Then construct, 699
 - IMABS function, 788
 - Image control, 735, 741
 - IMAGINARY function, 788
 - IMARGUMENT function, 788
 - IMCONJUGATE function, 788
 - IMCOS function, 788
 - IMDIV function, 788
 - IMEXP function, 788
 - IMLN function, 788
 - IMLOG2 function, 788
 - IMLOG10 function, 788
 - Import Data dialog box, 577, 584
 - importing Access databases, 576–578
 - IMPOWER function, 788
 - IMPRODUCT function, 788
 - IMREAL function, 788
 - IMSIN function, 788
 - IMSQRT function, 788
 - IMSUB function, 788
 - incomplete calculation errors, 552
 - incorrect reference errors in formulas, 551
 - INDEX function, 274, 278–280, 792
 - indirect cell dependents, 563
 - indirect cell precedent, 562
 - INDIRECT function, 326, 792
 - INFO function, 791
 - information
 - deleting, 568
 - finding, 567–568
 - replacing, 568
 - Information Rights Management (IRM), 140, 540
 - input ranges
 - correlation, 670
 - descriptive statistics, 670
 - histogram, 672
 - moving average, 673
 - random number generation, 674
 - sampling, 676
 - specifying, 669
 - t-Test, 676–677
 - z-Test, 677
 - InputBox function (VBA), 716–717
 - Insert Calculated Field dialog box, 620
 - Insert Calculated Item dialog box, 622
 - Insert dialog box, 67
 - Insert Function dialog box, 185, 712–713, 785
 - Insert Hyperlink dialog box, 517
 - Insert tab (Ribbon), 9
 - inserting
 - background images, 121
 - columns
 - in tables, 101
 - in worksheets, 66–67
 - comments, 90–91
 - controls, 733–736
 - footers, 166–167
 - function procedures (VBA), 712–713
 - functions, 184–186
 - headers, 166–167
 - hyperlinks, 517
 - page breaks, 162–163
 - pictures, 455
 - rows
 - in tables, 101
 - in worksheets, 66–67
 - Shapes, 441–442
 - sheet tabs, 6
 - SmartArt, 448–449
 - special characters, 209
 - tabs, 6
 - watermarks, 163–164
 - WordArt, 452–453
 - worksheets, 57
- inspecting workbooks, 547–548
 - installing
 - add-ins, 775, 780–781
 - Analysis ToolPak add-in, 668
 - Analysis Toolpak add-in, 265
 - Microsoft Query, 578
 - Solver add-in, 652
 - INT function, 793
 - Integer data type (VBA), 768
 - INTERCEPT function, 795
 - intermediary links, 505
 - Internet Assistant VBA add-in, 773
 - Internet newsgroups, 811–813
 - intersection operator, 200–201
 - INTRATE function, 789
 - invalid data, 483–484

- investments
 - calculations
 - future value of a series of deposits, 307–309
 - future value of a single deposit, 303–307
 - Rule of 72, 308
 - optimizing investment portfolio, 664–666
 - invisible digital signatures, 548–549
 - IPMT function, 789
 - IPMT function, 294
 - IrfanView graphics file viewer, 454
 - IRM (Information Rights Management), 140, 540
 - IRR function, 789
 - irregular payments for loans, calculating, 302–303
 - ISBLANK function, 791
 - ISERR function, 791
 - ISERROR function, 791
 - ISEVEN function, 791
 - ISLOGICAL function, 791
 - ISNA function, 791
 - ISNONTEXT function, 791
 - ISNUMBER function, 791
 - ISODD function, 791
 - ISPMT function, 789
 - ISREF function, 791
 - ISTEXT function, 207, 791
 - items (pivot tables), 598
- J**
- joining cells, 210
 - Jon Peltier's Excel Page Web site, 814
- K**
- keyboard
 - direction keys, 7–8
 - Num Lock key, 7
 - OnKey event, 754–755
 - Ribbon, 12–13, 815
 - Scroll Lock key, 7
 - shortcut keys, 815–821
 - shortcuts for number formatting, 48, 467
 - keytips, 12–13
 - Knowledge Base, 810
 - KURT function, 795
 - Kusleika, Dick (blogger), 814
- L**
- Label control, 735, 741
 - landscape orientation, 162
 - LARGE function, 795
 - large values, accuracy of, 36
 - Last Column, 102
 - layout
 - charts, 357–358
 - pivot tables, 597
 - SmartArt, 450–451
 - LCM function, 793
 - leading zeros, 475
 - leap year bug, 229
 - LEFT function, 215, 797
 - Left property, 738
 - legend (charts), 352, 354, 389
 - LEN function, 214, 797
 - less than (<) operator, 176
 - less than or equal to (<=) operator, 176
 - letter grades for test scores, 283–284
 - letters in columns, 6–7
 - levels of outlines, 494–496
 - line charts, 368–370
 - linear equations, solving simultaneous, 658–659
 - LINEST function, 795
 - LinkedCell property, 737–738
 - linking
 - controls to cells, 738
 - workbooks, 499–505
 - links
 - breaking, 560
 - editing, 560
 - phantom link errors, 560
 - ListBox control, 735, 741
 - ListFillRange property, 737
 - ListFormulas macro, 701–702
 - listing
 - controls, 735
 - data sources, 579
 - hidden worksheets, 59
 - named views, 172
 - scenarios, 646
 - worksheets, 56
 - lists, 96
 - LN function, 793
 - loan calculations
 - amortization schedule, 297–299
 - credit-card payments, 296–297
 - examples, 295–296
 - functions, 292–296
 - interest amount, 294
 - irregular payments, 302–303
 - loan options, 299–301
 - number of payment periods, 294
 - payment amount, 293
 - periodic interest rate amount, 294
 - present value, 294–295
 - principal amount, 293
 - locking cells, 152, 540–541
 - LOG function, 793
 - LOG10 function, 793
 - LOGEST function, 795
 - logical comparison operators, 176
 - logical errors in formulas, 551
 - logical functions, 791
 - logical values, counting, 253

- LOGINV function, 795
 - LOGNORMDIST function, 795
 - Long data type (VBA), 768
 - lookup formulas
 - case-sensitive lookup, 282–283
 - CHOOSE function, 274, 792
 - closest match values, 288–289
 - defined, 273–274
 - determining the cell address of a value within a range, 287–288
 - exact values, 280–281
 - grade-point average (GPA), 284–285
 - HLOOKUP function, 274, 277, 792
 - IF function, 274–275, 791
 - IFERROR function, 34, 180, 274, 555, 791
 - INDEX function, 274, 278–280, 792
 - letter grades for test scores, 283–284
 - LOOKUP function, 275, 277–278, 792
 - MATCH function, 275, 278, 792
 - multiple lookup tables, 283
 - OFFSET function, 275, 792
 - two-column lookups, 286–287
 - two-way lookups, 285–286
 - value to the left, 281–282
 - VLOOKUP function, 275–277, 792
 - LOOKUP function, 275, 277–278, 792
 - Lookup Wizard add-in, 773
 - looping ranges, 760–762
 - loops, 699–700
 - Lotus 1-2-3 Transition Navigation Keys, 815
 - LOWER function, 214, 797
- ## M
- Macro dialog box, 685
 - Macro Options dialog box, 693
 - macros
 - alert messages, 767
 - buttons, 693–694
 - controls, 738–739
 - copying a range, 758–759
 - counting selected cells, 763–764
 - creating, 687–689
 - defined, 681, 686
 - description of, 687
 - determining the type of range selection, 762–763
 - Developer tab, 9, 681–682
 - disabling, 34, 683
 - editing, 689–690
 - executing, 731
 - function procedures
 - arguments, 707–711
 - creating, 686, 704–706
 - debugging, 711
 - executing, 685, 706–707
 - InputBox, 716–717
 - inserting, 712–713
 - MsgBox, 717–720
 - uses, 703
 - values, 705–706
 - identifying a multiple selection, 763
 - ListFormulas macro, 701–702
 - looping ranges, 760–762
 - moving ranges, 760
 - names, 687
 - object references, 767–768
 - Personal Macro Workbook, 692–693
 - prompting for a cell value, 762
 - Quick Access Toolbar, 464, 731
 - recording, 687–689, 692
 - saving, 684
 - screen updating, 767
 - security, 682–683
 - selecting rows or columns, 760
 - selecting to the end of a row or column, 759–760
 - shortcut keys, 687, 693
 - stopping recording, 687
 - storage options, 687, 692–693
 - Sub procedures
 - defined, 684–685
 - executing, 685
 - suggested uses, 682
 - testing, 689, 691
 - UserForms
 - accelerator keys, 732
 - ActiveX controls, 721–723
 - alternatives, 716–720
 - creating, 720–721, 724–725, 727–728
 - displaying, 724, 728–729
 - event handling, 723, 726, 729–730
 - examples, 724–731
 - help, 723
 - testing, 725–726, 728, 730–731
 - uses, 715–716
 - viewing code, 688–691
 - Manual Calculation mode, 198
 - manual what-if analysis, 637
 - marching ants border around ranges, 79
 - margins
 - adjusting, 156, 160–161
 - aligning headers and footers with margins, 168
 - viewing, 156
 - MATCH function, 275, 278, 792
 - mathematical functions
 - list of, 792–794
 - plotting, 418–420
 - MAX function, 795
 - MAXA function, 795
 - Maximize button, 6
 - maximizing windows, 6, 54

MDETERM function, 793
 MDURATION function, 789
 MEDIAN function, 796
 menu shortcuts, 13–14
 Merge Scenarios dialog box, 646
 merging
 cells, 117
 named styles from other workbooks, 125
 scenarios, 646
 methods, 696, 699
 Microsoft Clip Organizer, 455
 Microsoft newsgroups, 811–812
 Microsoft Office Share Point Server product, 33
 Microsoft Office Web site, 811
 Microsoft Query. *See also* queries
 data sources
 choosing, 579–581
 creating, 579–580
 listing, 579
 external data ranges, 585–586
 installing, 578
 manual query creation, 586–588
 multiple database tables, 588
 Query window, 586–588
 Query Wizard, 581–584
 Microsoft technical support
 Knowledge Base, 810
 support options, 810
 Web site, 811
 MID function, 215, 797
 military time, 246
 MIN function, 796
 MINA function, 796
 Mini toolbar
 defined, 26
 formatting tools, 110–111
 hiding, 111
 turning on/off, 14, 111
 Minimize application button, 6
 Minimize window button, 6
 minimizing
 applications, 6
 windows, 6, 54
 MINUTE function, 241, 787
 MINVERSE function, 793
 MIRR function, 790
 mismatched parentheses in formulas, 552
 missing data points in charts, 402–403
 mixed cell references, 187–190
 MMULT function, 793
 MOD function, 793
 modal dialog boxes, 16
 MODE function, 257–258, 796
 modeless dialog boxes, 16

modifying. *See also* editing
 charts
 axes, 391–397
 chart area, 386
 elements of, 384–386
 plot area, 387–388
 3-D charts, 406–407
 named styles, 124
 pivot tables, 601–602
 scenarios, 645
 templates, 148–149, 152
 monitoring cells, 65–66
 MONTH function, 231, 241, 787
 mouse, 8
 Move Chart dialog box, 353, 361
 Move or Copy dialog box, 59
 moving
 around in tables, 100
 around in worksheets, 7–8, 816
 cell pointer, 41–42
 chart elements, 361–362
 charts, 353, 361
 legend (charts), 389
 Quick Access Toolbar, 461–462
 ranges, 78–80, 760
 within ranges, 817
 tables, 101
 windows, 55
 worksheets, 59
 moving average, 673
 Mr. Excel Web site, 814
 MROUND function, 793
 MsgBox function (VBA), 717–720
 multicell array formulas, 314–315, 323–327
 multiline headers and footers, 167
 MULTINOMIAL function, 793
 multiplication (*) operator, 176
 multisheet ranges, 74–75
 multiuser applications, 532

N

N function, 791
 #N/A error value, 555
 NA function, 791
 Name box, 6–7
 #NAME? error value, 555
 Name Manager, 89–90
 Name Manager dialog box, 560
 Name property, 738
 named arrays, 319–320
 named ranges
 creating, 87–89
 deleting, 90
 editing, 90

- named ranges (*continued*)
 - filtering, 90
 - Name Manager, 89–90
- named styles
 - applying, 123
 - attributes of, 122–123
 - creating, 124–125
 - merging with named styles from other workbooks, 125
 - modifying, 124
- named views, 171–172
- names
 - cell references, 202–203
 - constants, 199
 - extracting, 219–220
 - filtering, 560
 - formulas, 199–200
 - macros, 687
 - New Name dialog box, 199–200
 - scenarios, 645
 - workbooks, 137
- naming techniques for formulas, 199–203
- navigating
 - dialog boxes, 16
 - tables, 100
 - worksheets, 7–8, 816
- negative sign (-), 476–477
- NEGBINOMDIST function, 796
- NETWORKDAYS function, 231, 787
- networks, 531–532
- new features
 - charts, 28, 351
 - color schemes, 34
 - Compatibility Checker, 33
 - conditional formatting, 30, 423
 - consolidated options, 31
 - Document Inspector, 547–548
 - Excel Services, 33
 - fonts, 26, 113
 - Formula AutoComplete, 32
 - formula bar, 34
 - functions, 34, 180
 - larger worksheets, 26
 - Mini toolbar, 14, 26
 - Name Manager, 89–90
 - Page Layout view, 29, 157
 - pivot tables, 33, 592
 - predefined styles, 28
 - Quick Access Toolbar, 6, 13–15, 26
 - SmartArt, 31–32
 - status bar, 34
 - supported file formats, 27
 - tables, 95
 - templates, 34
 - themes, 28
 - tools for tables, 27–28
 - Trust Center, 34
 - user interface, 25–26
 - Zoom control, 34
- New Formatting Rule dialog box, 424
- New Name dialog box, 87–88, 199–200
- New Table Quick Style dialog box, 99
- New Web Query dialog box, 518–519
- New Workbook dialog box, 132, 145
- newsgroups, 811–813
- NewSheet event, 747, 749
- newsreaders, 811
- 1900 date system, 224
- 1904 date system, 224
- NOMINAL function, 790
- noncontiguous ranges, 73–74
- non-object events, 754–755
- nonprinting characters, 214
- non-time-of-day values, 248
- Normal View, 157–158
- NORMDIST function, 796
- NORMINV function, 796
- NORMSINV function, 796
- not equal to (<>) operator, 176
- NOT function, 791
- NOW function, 231, 241, 787
- NPER function, 294, 790
- NPV function, 790
- #NULL! error value, 555–556
- #NUM! error value, 556
- Num Lock key, 7
- Number format, 50
- number formatting
 - Accounting format, 50
 - automatic, 47–48, 466
 - calculations, 50
 - Currency format, 50
 - custom, 51, 468–477
 - Date formats, 50, 477
 - Format Cells dialog box, 49–50, 467–468
 - Fraction format, 51
 - fractions, 476
 - General format, 50, 465
 - hiding entries, 478–479
 - keyboard shortcuts, 48, 467
 - leading zeros, 475
 - negative sign (-), 476–477
 - Number format, 50
 - number format string, 469–471
 - Percentage format, 50
 - readability, 21, 47
 - Ribbon, 48, 466
 - Scientific format, 51
 - Special format, 51
 - Text format, 51, 478
 - TEXT function, 478
 - Time formats, 50, 477
- numbering of rows, 6–7

- numbering pages, 167
- numbers
 - forcing numbers to be treated as actual numbers, 206
 - ordinal numbers, 220
 - padding, 213–214
 - text, 206
- numerical values
 - dates, 38–39
 - defined, 35–36
 - entering, 37
 - times, 38–39

O

- Object data type (VBA), 768
- Object dialog box, 526–527
- Object Linking and Embedding (OLE), 526–527
- object model, 696
- object references in macros, 767–768
- objects. *See also* graphics
 - embedding, 526–527
 - hiding, 444
 - preventing objects from printing, 170–171
 - printing, 447
 - selecting, 444
 - VBA (Visual Basic for Applications), 696–697
- OCT2BIN function, 788
- OCT2DEC function, 788
- OCT2HEX function, 788
- ODBC (Open DataBase Connectivity), 576
- ODD function, 793
- ODDFPRICE function, 790
- ODDFYIELD function, 790
- ODDLPRICE function, 790
- ODDLYIELD function, 790
- Office button, 6
- Office Clipboard, 80, 82–83, 522
- Office Web site, 811
- OFFSET function, 275, 792
- OLAP Cube, 576
- OLAP (OnLine Analytical Processing), 576
- OLE (Object Linking and Embedding), 526–527
- one-dimensional arrays, 313, 317–318
- one-input data table, 299–300, 637–640
- OnKey event, 754–755
- OnTime event, 754
- Open DataBase Connectivity (ODBC), 576
- Open dialog box, 132–135
- Open event, 748–749
- opening
 - add-ins, 772
 - HTML files, 516
 - templates, 148
 - workbooks, 53–54, 132–135
- operators
 - addition (+), 176
 - concatenation (&), 176, 210
 - division (/), 176
 - equal to (=), 176
 - exponentiation (^), 176
 - formulas, 176–177
 - greater than, 176
 - greater than or equal to, 176
 - intersection operator, 200–201
 - less than, 176
 - less than or equal to, 176
 - multiplication (*), 176
 - not equal to (<>), 176
 - precedence, 177–179, 557–558
 - subtraction (-), 176
 - union operator (.), 201
- optimizing investment portfolio, 664–666
- OptionButton control, 735, 741–742
- Or criteria
 - counting formulas, 257
 - summing formulas, 272
- OR function, 791
- ordinal numbers, 220
- orientation (for print jobs), 162
- outlines
 - adding data to, 496
 - collapsing, 492–493, 496
 - creating, 491–496
 - defined, 491
 - deleting, 494, 496
 - expanding, 496
 - hiding outline symbols, 494, 497
 - levels of, 494–496
- output ranges, 669

P

- padding numbers, 213–214
- Page Break Preview, 157, 159–160
- page breaks
 - adjusting, 157, 159
 - forcing, 162
 - inserting, 162–163
 - previewing, 157–160
 - removing, 163
- Page Layout tab (Ribbon), 9
- Page Layout View, 29, 157–159
- page margins
 - adjusting, 156, 160–161
 - aligning headers and footers with margins, 168
 - viewing, 156
- page numbers, 167
- page orientation, 162
- Page Setup dialog box, 160–161
- Page view buttons, 6
- paper sizes, 162
- parentheses, mismatched, 552
- password-cracking utilities, 539

- password-protection
 - VBA code, 539, 545–546
 - workbooks, 137–138, 539, 543–544
 - worksheets, 539–541
- Paste Name dialog box, 183–184
- Paste Special dialog box, 85–86, 506–507
- pasting
 - comments, 85
 - data between applications, 521–522
 - data validation criteria, 85
 - Excel to Word, 523–526
 - formatting, 85
 - formulas, 85–86
 - ranges, 84–86
 - values, 85
 - widths of columns, 85
- PDF add-in, 34, 546–547
- PEARSON function, 796
- Pearson Software Consulting Web site, 814
- peer-to-peer networks, 532
- percentage error bars, 403
- Percentage format, 50
- PERCENTILE function, 796
- percentiles, 675
- PERCENTRANK function, 796
- permissions
 - IRM (Information Rights Management), 140, 540
 - user permissions, 542–543
- PERMUT function, 796
- Personal Macro Workbook, 692–693
- phantom link errors, 560
- PI function, 793
- picture charts, 411–412
- Picture property, 738
- pictures
 - copying, 456–457
 - footers, 167
 - headers, 167
 - inserting, 455
 - styles, 456
- pie charts, 370–371
- pivot charts
 - creating, 626
 - examples, 627–632
 - formatting, 33
 - reports, 632–634
- pivot tables
 - calculated fields, 618–621
 - calculated items, 618–619, 621–623
 - calculations, 600
 - cell references, 624–626
 - column labels, 598
 - copying, 602
 - creating, 595–597
 - data sources, 598
 - defined, 591
 - editing, 601–602
 - examples, 592–594, 602–607
 - external database files, 594–595
 - formatting, 599
 - frequency distributions, 264, 616–618
 - grand totals, 598
 - grouping items, 611–616
 - groups, 598
 - items, 598
 - layout, 597
 - modifying, 601–602
 - new features, 33, 592
 - non-numeric data, 609–610
 - refreshing, 591, 598
 - reverse pivot tables, 624
 - row labels, 598
 - specifying location of, 596
 - styles, 599
 - subtotals, 598
 - table filters, 599
 - updating, 591, 598
 - value areas, 599
- PivotTable Options dialog box, 599
- PivotTableUpdate event, 751
- placing information into multiple cells simultaneously, 42
- plot area (charts)
 - defined, 355
 - modifying, 387–388
- plotting mathematical functions, 418–420
- PMT function, 293, 790
- POISSON function, 796
- portrait orientation, 162
- posting to a newsgroup, 813
- POWER function, 793
- Power Utility Pak add-in, 229
- PPMT function, 293, 790
- pre-1900 dates, 229–230
- precedence of operators, 177–179, 557–558
- predefined styles, 28
- preventing
 - alert messages in VBA, 767
 - certain cells from printing, 170
 - objects from printing, 170–171
- previewing
 - page breaks, 157–160
 - print jobs, 156
- PRICE function, 790
- PRICEDISC function, 790
- PRICEMAT function, 790
- print area, 162
- Print dialog box, 168–169
- printers, choosing, 169

printing

- active sheet(s), 169
- background images, 163
- cell gridlines, 165
- charts, 363
- custom views, 171
- error values, 554
- multiple copies, 169
- Normal View, 157–158
- objects, 447
- orientation, 162
- Page Break Preview, 157, 159
- Page Layout View, 157–159
- paper sizes, 162
- preventing certain cells from printing, 170
- preventing objects from printing, 170–171
- print area, 162
- Print Preview, 156
- Quick Print, 155–156
- row and column headers, 166
- row and column titles, 164–165
- scaling printed output, 165
- selection, 169
- Shapes, 447
- tables, 169
- watermarks, 163–164
- workbooks, 169
- worksheets, 23–24

PROB function, 796

procedures. *See* macros

PRODUCT function, 793

programming. *See* VBA (Visual Basic for Applications)

Project Properties dialog box, 546, 778

prompting for a cell value, 762

PROPER function, 214, 797

properties

- controls, 736–738
- external data ranges, 585
- VBA (Visual Basic for Applications), 696–699
- workbooks, 139

Protect Sheet dialog box, 540, 542

Protect Workbook dialog box, 545

protecting

- scenarios, 645
- VBA code, 539, 545–546
- windows, 545
- workbooks, 60, 137–138, 539, 543–545
- worksheets, 539–541

Publish As PDF Or XPS dialog box, 547

PV function, 294–295, 790

Q

QAT (Quick Access Toolbar). *See* Quick Access Toolbar (QAT)

QUARTILE function, 796

queries

- creating, 581–584, 586–588
- defined, 576
- deleting, 586
- editing, 586
- examples, 578–584
- external data ranges, 585–586
- Microsoft Query, 578–581
- multiple database tables, 588
- Query Wizard, 581–584
- refreshing, 585–586
- relational databases, 588
- result sets

- defined, 576

- displaying, 584

Query window, 586–588

Query Wizard, 581–582

Quick Access Toolbar (QAT)

- Camera tool, 457

- commands, 462–464

- customizing, 14–15, 461–464

- defined, 6, 26

- Excel12.ribbonx file, 464

- macros, 464, 731

- moving, 461–462

- rearranging icons, 464

- removing icons, 464

- Repeat button, 13

- resetting, 464

- Scenarios control, 646

- Undo button, 13

quick counts or sums, 251

Quick Print, 155–156

QUOTIENT function, 793

R

radar charts, 374–376

RADIANS function, 793

RAND function, 793

RANDBETWEEN function, 793

random number generation, 673–674

ranges. *See also* cell references

- addresses

- defined, 7

- examples of, 71

- specifying, 71

- array formulas, 331–332

- contiguous, 73

- copying, 78–83, 758–759

- counting

- characters in a range, 327–328

- error values in a range, 253–254

- number of differences in two ranges, 337

- number of error values in a range, 334

- ranges, counting (*continued*)
 - selected cells, 763–764
 - text cells in a range, 329–330
- defined, 71
- determining
 - cell address of a value within a range, 287–288
 - closest value in a range, 343
 - type of selection, 762–763
 - whether a particular value appears in a range, 336–337
 - whether a range contains valid values, 338–339
- displaying calendar in a range, 347–348
- external data ranges, 585–586
- finding row of a value's nth occurrence in a range, 338
- fonts, 114–115
- formulas, 183–184
- identifying a multiple selection, 763
- looping, 760–762
- marching ants border, 79
- moving, 78–80, 760
- moving within, 817
- multisheet, 74–75
- named ranges
 - creating, 87–89
 - deleting, 90
 - editing, 90
 - filtering, 90
 - Name Manager, 89–90
- noncontiguous, 73–74
- pasting, 84–86
- range intersections, 200–202
- returning
 - last value in a column, 343–344
 - last value in a row, 344
 - list of unique items in a range, 347
 - location of the maximum value in a range, 337–338
 - longest text in a range, 338
 - nonblank cells from a range, 346
 - only positive values from a range, 345–346
- selecting, 42, 72–78
- summing
 - all cells in a range, 265–266
 - digits of an integer, 339–340
 - every nth value in a range, 341–342
 - n* largest values in a range, 335
 - range that contains errors, 333–334
 - rounded values, 340–341
 - three smallest values in a range, 328–329
- tables
 - converting ranges into tables, 95–98
 - converting tables into ranges, 107
 - taking a “picture” of a range, 457
 - transposing, 86
 - VBA, 757–758
- RANK function, 796
- ranking data, 344–345
- ranks, 675
- RATE function, 294, 790
- readability of worksheets, 21, 47
- reading all comments, 93
- ReadMe file (CD-ROM), 799
- read-only files, 532–533
- rearranging
 - icons on Quick Access Toolbar, 464
 - worksheets, 58–59
- recalculating formulas, 558
- RECEIVED function, 790
- Record Macro dialog box, 687
- recording macros, 687–689, 692
- records (databases)
 - adding, 588
 - defined, 576
 - editing, 588
- #REF! error value, 556
- references to cells. *See* cell references
- references to objects in macros, 767–768
- refreshing
 - consolidated worksheets, 509
 - databases, 576
 - pivot tables, 591, 598
 - queries, 585–586
 - Web queries, 518–520
- regression, 675
- rejecting changes, 538
- relational databases, 576, 588
- relative cell references, 187–188, 191, 556–557
- relative macro recording, 692
- removing. *See also* deleting
 - icons from Quick Access Toolbar, 464
 - non-numeric characters from a string, 342
 - nonprinting characters, 214
 - page breaks, 163
 - spacing, 214
 - titles from names, 220
- renaming worksheets, 58
- Repeat command, 13
- repeating
 - actions or commands, 13
 - characters, 212, 479
- REPLACE function, 216–217, 797
- replacing
 - conditional formatting, 440
 - contents of cells, 40
 - formatting, 569
 - information, 568
 - text, 216–217, 568
- reports
 - pivot charts, 632–634
 - scenario report, 647
- REPT function, 212–214, 797

- reserving files, 532–533
 - resetting
 - chart element formatting, 387
 - Quick Access Toolbar, 464
 - reshaping Shapes, 446
 - resizing
 - charts, 361
 - Formula bar, 34
 - Shapes, 445
 - windows, 55
 - resource allocation, 662–664
 - Restore button, 6
 - restoring windows, 6, 54
 - result sets of queries
 - defined, 576
 - displaying, 584
 - returning
 - last value in a column, 343–344
 - last value in a row, 344
 - list of unique items in a range, 347
 - location of the maximum value in a range, 337–338
 - longest text in a range, 338
 - nonblank cells from a range, 346
 - only positive values from a range, 345–346
 - reverse pivot tables, 624
 - Review tab (Ribbon), 9
 - Ribbon
 - Add-ins tab, 9
 - buttons, 11–12
 - commands, 11–12
 - contextual tabs, 10–11
 - Date tab, 9
 - defined, 6
 - Developer tab, 9
 - Formulas tab, 9
 - hiding, 10
 - Home tab, 9–10
 - Insert tab, 9
 - keyboard access, 12, 815
 - keytips, 12–13
 - number formatting, 48, 466
 - Page Layout tab, 9
 - Review tab, 9
 - turning on/off, 10
 - View tab, 9
 - RIGHT function, 215, 797
 - Rights Management Services (RMS), 540
 - ripple effect, 195
 - ROMAN function, 793
 - rotating Shapes, 446
 - ROUND function, 793
 - ROUNDDOWN function, 793
 - rounding time values, 247
 - ROUNDUP function, 793
 - ROW function, 792
 - row labels (pivot tables), 598
 - ROWS function, 792
 - rows (tables)
 - adding, 101
 - Banded Rows, 102
 - defined, 95
 - deleting, 101, 103–104
 - duplicate rows, 103–104
 - Header Row, 101–102
 - selecting, 100
 - Total Row, 102–103
 - rows (worksheets)
 - adding, 66–67
 - alternate-row shading, 436–437
 - deleting, 67
 - headers, printing, 166
 - height, changing, 68–69
 - hiding, 67–68
 - inserting, 66–67
 - numbers, 6–7
 - selecting, 73, 759–760
 - titles, printing, 164–165
 - unhiding, 68
 - RSQ function, 796
 - RTD function, 792
 - Rule of 72, 308
 - rules for conditional formatting, 422–425, 439
- ## S
- sample files on CD-ROM, 800–806
 - sampling, 676
 - saving
 - macros, 684
 - named views, 172
 - templates, 152–153
 - workbooks
 - all workbooks, 764–765
 - for older version of Excel, 143
 - options for saving, 136
 - as PDF file, 546–547
 - suggested frequency of saves, 24, 136
 - as XPS file, 547
 - scale values (charts), 354
 - scaling
 - footers, 168
 - headers, 168
 - print jobs, 165
 - scatter (XY) charts, 371–372
 - Scenario Manager, 643–647
 - Scenario Manager dialog box, 644–645
 - Scenario Summary dialog box, 647
 - Scenario Values dialog box, 645
 - Scenarios control, 646
 - Scientific format, 51

- screen display, 4–6
- screen updating, 767
- scroll buttons for sheet tabs, 6
- Scroll Lock key, 7
- ScrollBar control, 735, 742
- scrollbars, 6
- Search button, 809–810
- SEARCH function, 216–217, 797
- searching
 - Clip Art task pane, 454–455
 - dates, 226
 - Find What text box, 567
 - help system, 809–810
 - Microsoft Knowledge Base, 810
 - newsgroups, 812
 - text, 216–217
- SECOND function, 787
- SECOND function, 241
- security
 - macros, 682–683
 - passwords, 539
- Select Case construct, 700
- Select Changes to Accept or Reject dialog box, 538
- Select Data Source dialog box, 389, 576
- selecting
 - array formula range, 321
 - cells, 76–77, 816–817
 - chart elements, 381–384
 - columns
 - in tables, 100
 - in worksheets, 73, 759–760
 - comments, 76
 - constants, 76
 - data series (charts), 398
 - formulas, 76
 - named views, 172
 - objects, 444
 - range of input cells, 42
 - ranges, 72–78
 - rows
 - in tables, 100
 - in worksheets, 73, 759–760
 - Shapes, 442
 - SmartArt, 449
 - tables, 101
 - WordArt, 453
- SelectionChange event, 751–753
- selections
 - determining the type of selection, 762–763
 - identifying a multiple selection, 762
- semantic errors in formulas, 551
- serial numbers
 - dates, 223–224
 - times, 226–227
- SERIESSUM function, 793
- settings for shared workbooks, 535–536
- severing workbook links, 503
- Shapes
 - aligning, 446
 - arranging, 445
 - charts, 441
 - creating, 442
 - defined, 441
 - draw layer, 441, 443
 - formatting, 445
 - Freeform Shape, 446–447
 - grouping, 446
 - hiding, 443
 - inserting, 441–442
 - printing, 447
 - reshaping, 446
 - resizing, 445
 - rotating, 446
 - selecting, 442
 - spacing, 446
 - text, 444
 - ungrouping, 446
- shapes of comments, 92–93
- Share Point Server product, 33
- Share Workbook dialog box, 534–536
- shareware programs, 800
- sharing data
 - copying and pasting, 521–522
 - destination application, 521–522
 - Excel to Word, 522–526
 - Object Linking and Embedding (OLE), 526–527
 - source application, 521–522
- sharing files, 532–533
- sharing workbooks, 33, 533–536
- sheet tabs
 - colors, 58
 - defined, 4
 - inserting, 6
 - scroll buttons, 6
- SheetActivate event, 748–749
- SheetBeforeDoubleClick event, 748
- SheetBeforeRightClick event, 748
- SheetCalculate event, 748
- SheetChange event, 748
- SheetDeactivate event, 748
- SheetFollowHyperlink event, 748
- sheets. *See* worksheets
- SheetSelectionChange event, 748
- shipping costs, 660–662
- short date format, 224
- shortcut keys
 - cell selection, 816–817
 - Formula Bar, 817–818

- function keys, 820–821
- macros, 687, 693
- miscellaneous, 819
- range navigation, 817
- Transition Navigation Keys, 815
- worksheet navigation, 816
- shortcut menus, 13–14
- shortcuts
 - data entry, 44–45
 - number formatting, 48, 467
- shrinking text to fit a cell, 116–117
- SIGN function, 793
- signing workbooks with digital signatures, 140, 548–549
- simple interest, 303–304
- simultaneous linear equations, solving, 658–659
- SIN function, 794
- Single data type (VBA), 768–769
- single file Web Page, 514–516
- single-cell array formulas, 315–316, 327–330
- single-cell goal seeking, 650–651
- SINH function, 794
- Size And Properties dialog box, 170–171, 363, 447
- size limits for worksheets, 26
- sizes of fonts, 112–113
- SKEW function, 796
- SLN function, 310, 790
- SLOPE function, 796
- SMALL function, 796
- Smart Tags
 - defined, 81
 - turning on/off, 81
- SmartArt
 - colors, 452
 - customizing, 449–450
 - defined, 31–32
 - inserting, 448–449
 - layout, 450–451
 - selecting, 449
 - styles, 452
 - text, 450
 - themes, 452
- smoothing constant, 671
- Solver add-in
 - appropriate problems for, 652
 - constraints, 654–655
 - defined, 649, 773
 - examples, 653–666
 - Frontline Systems Web site, 662
 - installing, 652
- Solver Options dialog box, 656–657
- Solver Parameters dialog box, 654
- solving simultaneous linear equations, 658–659
- Sort dialog box, 105–106
- sorting table data, 104–106
- source application, 521–522
- space characters, 553
- spacing
 - removing excess spacing, 214
 - Shapes, 446
- special characters, 209
- Special format for number formatting, 51
- specifying
 - location of pivot tables, 596
 - ranges
 - addresses, 71
 - input ranges, 669
 - output ranges, 669
- speeding up VBA, 766–767
- spell checking, 569–570
- Spelling dialog box, 570
- SpinButton control, 735, 743
- splitting
 - text strings, 221
 - windows into panes, 63–64
- Spreadsheet Page Web site, 813
- spreadsheets. *See* worksheets
- SQL (Structured Query Language), 576
- SQRT function, 794
- SQRTPI function, 794
- stacked column chart, 366
- standard deviation error bars, 404
- standard error bars, 404
- STANDARDIZE function, 796
- starting Excel 2007
 - Startup Prompt dialog box, 503
 - without an empty workbook, 133
- statistics
 - descriptive statistics, 670–671
 - F-Test, 671–672
 - statistical functions, 794–797
 - t-Test, 676–677
 - z-Test, 677
- status bar, 6, 34, 251
- STDEV function, 796
- STDEVA function, 796
- STDEVF function, 796
- STDEVPA function, 796
- Stephen Bullen's Excel Page Web site, 814
- STEYX function, 796
- stock charts, 379–380
- stopping macro recording, 687
- storage options for macros, 687, 692–693
- String data type (VBA), 768
- strings. *See* text
- Structured Query Language (SQL), 576
- Style dialog box, 124
- styles
 - borders, 119–120
 - fonts, 113–114

- styles (*continued*)
 - named styles
 - applying, 123
 - attributes of, 122–123
 - creating, 124–125
 - merging with named styles from other workbooks, 125
 - modifying, 124
 - pictures, 456
 - pivot tables, 599
 - predefined styles, 28
 - SmartArt, 452
 - tables, 22, 98–100, 119
 - templates, 125–126
 - Sub procedures
 - defined, 684–685
 - executing, 685
 - SUBSTITUTE function, 216–217, 797
 - SUBTOTAL function, 250, 794
 - subtraction (-) operator, 176
 - SUM function, 250, 794
 - SUMIF function, 250, 794
 - SUMIFS function, 34, 180, 250, 794
 - summing formulas
 - all cells in a range, 265–266
 - And criteria, 271–272
 - conditional sums, 268–271
 - cumulative sums, 266–267
 - defined, 249
 - digits of an integer, 339–340
 - every nth value in a range, 341–342
 - n largest values in a range, 335
 - negative values, 269
 - Or criteria, 272
 - quick sums, 251
 - range that contains errors, 333–334
 - rounded values, 340–341
 - three smallest values in a range, 328–329
 - times that exceed 24 hours, 244–245
 - “top n” values, 268
 - values based on a date comparison, 270
 - values based on a different range, 269
 - values based on a text comparison, 269
 - SUMPRODUCT function, 250, 794
 - SUMSQ function, 250, 794
 - SUMX2MY2 function, 250, 794
 - SUMX2PY2 function, 250, 794
 - SUMXMY2 function, 250, 794
 - support options from Microsoft, 810
 - supported file formats, 27
 - surface charts, 377
 - switching among windows, 55–56
 - SYD function, 310, 790
 - Symbol dialog box, 209
 - symbols, 209
 - syntax errors in formulas, 551–553
 - system requirements for CD-ROM, 799
- ## T
- T function, 797
 - tab list, 6
 - tab order in UserForms, 732
 - tabbed dialog boxes, 17–18
 - table filters (pivot tables), 599
 - tables. *See also* data tables
 - colors, 98–99, 119
 - columns
 - adding, 101
 - Banded Columns, 102
 - defined, 95
 - deleting, 101
 - First Column, 102
 - Last Column, 102
 - selecting, 100
 - creating, 21–22, 95–98
 - custom styles, 99–100
 - databases, 576
 - defined, 27, 95
 - dimensions, 98
 - filtering data, 104, 106–107
 - formatting, 98–99, 102, 119
 - formulas, 191–195
 - lists, 96
 - moving, 101
 - moving around in, 100
 - navigating, 100
 - new features, 27–28, 95
 - printing, 169
 - ranges
 - converting ranges into tables, 95–98
 - converting tables into ranges, 107
 - rows
 - adding, 101
 - Banded Rows, 102
 - defined, 95
 - deleting, 101, 103–104
 - duplicate rows, 103–104
 - Header Row, 101–102
 - selecting, 100
 - Total Row, 102–103
 - selecting, 101
 - sorting data, 104–106
 - styles, 22, 98–100, 119
 - themes, 98
 - tabs
 - colors, 58
 - defined, 4
 - inserting, 6
 - scroll buttons, 6
 - taking a “picture” of a range, 457

- TAN function, 794
- TANH function, 794
- taskbar, 18–19
- TBILLEQ function, 790
- TBILLPRICE function, 790
- TBILLYIELD function, 790
- TDIST function, 796
- technical support
 - CD-ROM, 807
 - Microsoft Knowledge Base, 810
 - Microsoft Web site, 811
 - support options from Microsoft, 810
 - Wiley Product Technical Support, 807
- templates
 - charts
 - applying, 410–411
 - creating, 390, 410–411
 - worksheets
 - applying, 146–148
 - creating, 149–153
 - custom, 149–153
 - default templates, 149–151
 - defined, 145
 - downloading, 146
 - locking formula cells, 152
 - Microsoft Office Online, 146
 - modifying, 148–149, 152
 - new templates in Excel 2007, 34
 - opening, 148
 - saving, 152–153
 - styles, 125–126
 - viewing, 145–146
- test scores and letter grades, 283–284
- testing
 - controls, 736
 - custom number formats, 477
 - macros, 689, 691
 - UserForms, 725–726, 728, 730–731
- text
 - aligning, 115–116
 - angled text, 117–118
 - AutoCorrect feature, 570–571
 - changing case of, 214–215
 - charts, 388
 - colors, 118–119
 - concatenation, 210
 - counting
 - characters in a text string, 214
 - occurrences of specific text, 258–260
 - defined, 36
 - deleting, 568
 - direction options, 118
 - entering, 37–38, 205
 - extracting characters from a text string, 215
 - finding, 216, 567–568
 - fonts
 - applying to ranges, 114–115
 - changing, 113
 - default font, 112
 - defined, 112
 - new fonts for Excel 2007, 26, 113
 - sizes, 112–113
 - styles, 113–114
 - symbols, 209
 - forcing to appear on a new line within a cell, 44
 - functions
 - CHAR, 207–210, 797
 - CLEAN, 214, 797
 - CODE, 207–208, 797
 - DOLLAR, 212, 797
 - EXACT, 210, 797
 - FIND, 216, 797
 - ISTEXT, 207, 791
 - LEFT, 215, 797
 - LEN, 214, 797
 - LOWER, 214, 797
 - MID, 215, 797
 - PROPER, 214, 797
 - REPLACE, 216–217, 797
 - REPT, 212–214, 797
 - RIGHT, 215, 797
 - SEARCH, 216–217, 797
 - SUBSTITUTE, 216–217, 797
 - TEXT, 211, 478, 797
 - TRIM, 214, 797
 - UPPER, 214–215, 797
 - histograms, 212–213
 - number formatting, 51, 478
 - numbers, 206
 - removing non-numeric characters from a string, 342
 - replacing, 216–217, 568
 - searching, 216–217
 - Shapes, 444
 - shrinking text to fit a cell, 116–117
 - SmartArt, 450
 - spell checking, 569–570
 - splitting text strings, 221
- TEXT function, 211, 478, 797
- TextBox control, 735, 743–744
- themes
 - applying, 126–128
 - colors, 129
 - customizing, 128–129
 - defined, 28, 126
 - fonts, 128–129
 - SmartArt, 452
 - tables, 98
- thermometer chart, 412–413
- 3-D charts, 406–407
- three-dimensional arrays, 313

- TIME function, 241, 787
 - time value of money, 291–292
 - times
 - adding hours, minutes, or seconds to a time, 246–247
 - calculating difference between two times, 243
 - converting
 - decimal hours, minutes, or seconds to a time, 246
 - military time into regular time, 246
 - current time, displaying, 242
 - displaying, 242
 - entering
 - acceptable formats, 227–228
 - into header or footer, 167
 - into worksheets, 38–39
 - formatting, 228–229
 - non-time-of-day values, 248
 - number formats, 50, 477
 - numerical values, 38–39
 - OnTime event, 754
 - rounding time values, 247
 - serial numbers, 226–227
 - summing times that exceed 24 hours, 244–245
 - time-stamp, 46
 - TIMEVALUE function, 241, 787
 - TINV function, 796
 - title bar, 6
 - titles
 - charts, 354, 358, 388
 - removing from names, 220
 - TODAY function, 231, 787
 - ToggleButton control, 735, 744
 - toolbars
 - Mini toolbar
 - defined, 26
 - formatting tools, 110–111
 - hiding, 111
 - turning on/off, 14, 111
 - Quick Access Toolbar
 - Camera tool, 457
 - commands, 462–464
 - customizing, 14–15, 461–464
 - defined, 6, 26
 - macros, 464, 731
 - moving, 461–462
 - rearranging icons, 464
 - removing icons, 464
 - Repeat button, 13
 - resetting, 464
 - Scenarios control, 646
 - Undo button, 13
 - top bottom rules conditional formatting, 423
 - Top property, 738
 - Total Row, 102–103
 - tracing
 - cell relationships, 562–564
 - error values, 554, 564
 - tracking changes, 535–538
 - Transition Navigation Keys, 815
 - TRANSPOSE function, 325–326, 792
 - transposing
 - arrays, 325–326
 - ranges, 86
 - TREND function, 796
 - trendlines, 404–405
 - trial versions of software, 800
 - trigonometry functions, 792–794
 - TRIM function, 214, 797
 - TRIMMEAN function, 796
 - troubleshooting
 - CD-ROM problems, 807
 - goal seeking, 651–652
 - TRUE function, 791
 - TRUNC function, 794
 - Trust Center, 34
 - Trust Center dialog box, 682–683
 - trusted folders, 683
 - t-Test, 676–677
 - TTEST function, 796
 - turning on/off
 - Mini toolbar, 14, 111
 - Ribbon, 10
 - Smart Tags, 81
 - two-column lookups, 286–287
 - two-dimensional arrays, 313, 318–319
 - two-input data table, 300–301, 640–642
 - two-way lookups, 285–286
 - TYPE function, 791
 - typefaces, 112
 - types of data. *See* data types
- ## U
- Undo command, 13
 - undoing actions or commands, 13
 - ungrouping Shapes, 446
 - Unhide dialog box, 59–60
 - unhiding
 - columns (worksheets), 68
 - comments, 93
 - rows (worksheets), 68
 - worksheets, 59–60
 - union operator (.), 201
 - unlinking workbooks, 503
 - unlocking cells, 540–541
 - unprotecting
 - windows, 545
 - workbooks, 545
 - worksheets, 542

- updating
 - link formulas, 503
 - pivot tables, 591, 598
 - workbooks, 535
 - UPPER function, 214–215, 797
 - user input using controls, 733
 - user interface
 - add-ins, 773, 779–781
 - Excel 2007, 25–26
 - user permissions, 542–543
 - user-defined data type (VBA), 768
 - UserForms
 - accelerator keys, 732
 - alternatives, 716–720
 - controls, 721–723, 733–734
 - creating, 720–721, 724–725, 727–728
 - displaying, 724, 728–729
 - event handling, 723, 726, 729–730
 - examples, 724–731
 - help, 723, 732
 - tab order, 732
 - testing, 725–726, 728, 730–731
 - uses, 715–716
- ## V
- validation of data
 - cell references, 485–487
 - criteria, 482–483
 - defined, 481–482
 - drop-down lists, 484–485
 - examples, 487–489
 - formulas, 485–489
 - invalid data, 483–484
 - limitations of, 481
 - pasting criteria, 85
 - value areas (pivot tables), 599
 - value axis (charts), 354, 391–395
 - #VALUE! error value, 556
 - VALUE function, 797
 - Value property, 738
 - values
 - assigning to variables, 696
 - formulas
 - actual versus displayed values, 558
 - converting formulas to values, 204
 - error values, 195–196
 - hard-coded, 203, 636
 - pasting, 85
 - function procedures (VBA), 705–706
 - lookup formulas
 - case-sensitive lookup, 282–283
 - CHOOSE function, 274, 792
 - closest match values, 288–289
 - defined, 273–274
 - determining the cell address of a value within a range, 287–288
 - exact values, 280–281
 - grade-point average (GPA), 284–285
 - HLOOKUP function, 274, 277, 792
 - IF function, 274–275, 791
 - IFERROR function, 34, 180, 274, 555, 791
 - INDEX function, 274, 278–280, 792
 - letter grades for test scores, 283–284
 - LOOKUP function, 275, 277–278, 792
 - MATCH function, 275, 278, 792
 - multiple lookup tables, 283
 - OFFSET function, 275, 792
 - two-column lookups, 286–287
 - two-way lookups, 285–286
 - value to the left, 281–282
 - VLOOKUP function, 275–277, 792
 - scenarios, 645
 - summing three smallest values in a range, 328–329
 - VAR function, 796
 - VARA function, 797
 - variable types, declaring, 768–769
 - variables, 699
 - Variant data type (VBA), 768–769
 - VARP function, 797
 - VARPA function, 797
 - VB Editor, 685–686
 - VBA (Visual Basic for Applications)
 - alert messages, 767
 - Analysis ToolPak—VBA add-in, 773
 - capabilities, 682
 - charts, 765–766
 - code
 - assigning values to variables, 696
 - editing, 694
 - entering, 694–695
 - events, 745–747, 750
 - parts of, 695–696
 - password-protection, 539, 545–546
 - protecting, 539, 545–546
 - writing, 694–695
 - collections, 696–697
 - control structures
 - For-Next loop, 699–700
 - If-Then construct, 699
 - Select Case construct, 700
 - With-End With construct, 700
 - data types, 768–769
 - defined, 686
 - Developer tab, 9, 681–682
 - events
 - Activate, 747, 751
 - AddinInstall, 747
 - AddinUninstall, 747
 - BeforeClose, 747, 750

VBA (Visual Basic for Applications), events (*continued*)

- BeforeDoubleClick, 751
- BeforePrint, 747
- BeforeRightClick, 751, 753
- BeforeSave, 747, 750
- Calculate, 751
- Change, 751–752
- code modules, 745–747, 750
- Deactivate, 747, 751
- FollowHyperlink, 751
- NewSheet, 747, 749
- OnKey, 754
- OnTime, 754
- Open, 748–749
- PivotTableUpdate, 751
- SelectionChange, 751–753
- SheetActivate, 748–749
- SheetBeforeDoubleClick, 748
- SheetBeforeRightClick, 748
- SheetCalculate, 748
- SheetChange, 748
- SheetDeactivate, 748
- SheetFollowHyperlink, 748
- SheetSelectionChange, 748
- types of, 745
- UserForms, 723, 726, 729–730
- WindowActivate, 748
- WindowDeactivate, 748
- WindowResize, 748

help, 757

Internet Assistant VBA add-in, 773

methods, 696, 699

object model, 696

objects, 696–697

properties, 696–699

ranges, 757–758

screen updating, 767

security features, 682–683

speeding up, 766–767

UserForms

- accelerator keys, 732

- ActiveX controls, 721–723

- alternatives, 716–720

- creating, 720–721, 724–725, 727–728

- displaying, 724, 728–729

- event handling, 723, 726, 729–730

- examples, 724–731

- help, 723, 732

- tab order, 732

- testing, 725–726, 728, 730–731

- uses, 715–716

variables, 699

workbooks, 764–765

VBA function procedures

- arguments, 707–711

- creating, 686, 704–706

- debugging, 711

- executing, 706–707

- InputBox, 716–717

- inserting, 712–713

- MsgBox, 717–720

- uses, 703

- values, 705–706

VBA macros

- alert messages, 767

- buttons, 693–694

- controls, 738–739

- copying a range, 758–759

- counting selected cells, 763–764

- creating, 687–689

- defined, 681, 686

- description of, 687

- determining the type of range selection, 762–763

- Developer tab, 9, 681–682

- disabling, 34, 683

- editing, 689–690

- executing, 731

- function procedures

- arguments, 707–711

- creating, 686, 704–706

- debugging, 711

- executing, 685, 706–707

- InputBox, 716–717

- inserting, 712–713

- MsgBox, 717–720

- uses, 703

- values, 705–706

- identifying a multiple selection, 763

- ListFormulas macro, 701–702

- looping ranges, 760–762

- moving ranges, 760

- names, 687

- object references, 767–768

- Personal Macro Workbook, 692–693

- prompting for a cell value, 762

- Quick Access Toolbar, 464, 731

- recording, 687–689, 692

- saving, 684

- screen updating, 767

- security, 682–683

- selecting rows or columns, 760

- selecting to the end of a row or column, 759–760

- shortcut keys, 687, 693

- stopping recording, 687

- storage options, 687, 692–693

- Sub procedures

- defined, 684–685

- executing, 685

- suggested uses, 682
 - testing, 689, 691
 - UserForms
 - accelerator keys, 732
 - ActiveX controls, 721–723
 - alternatives, 716–720
 - creating, 720–721, 724–725, 727–728
 - displaying, 724, 728–729
 - event handling, 723, 726, 729–730
 - examples, 724–731
 - help, 723
 - testing, 725–726, 728, 730–731
 - uses, 715–716
 - viewing code, 688–691
 - VBA Sub procedures
 - defined, 684–685
 - executing, 685
 - VDB function, 310, 790
 - vector images, 453
 - vertical scrollbar, 6
 - View tab (Ribbon), 9
 - viewing
 - formulas, 562
 - macro code, 688–691
 - margins, 156
 - templates, 145–146
 - views
 - custom views, 171–172
 - freezing panes, 64–65
 - multiple views of same worksheet, 62–63
 - named views, 171–172
 - Normal View, 157–158
 - Page Break Preview, 157, 159–160
 - Page Layout View, 29, 157–159
 - split panes, 63–64
 - worksheet comparisons, 56, 63
 - zoom percentage, 61–62
 - visible digital signatures, 548–549
 - Visible property, 738
 - Visual Basic Editor, 685–686
 - Visual Basic for Applications. *See* VBA
 - VLOOKUP function, 275–277, 792
- ## W
- Watch Window, 65–66
 - watermarks, 163–164
 - Web formats
 - HTML file, 513–516
 - single file Web Page, 514–516
 - Web Options dialog box, 515
 - Web queries, 518–520
 - Web Query Options dialog box, 519
 - Web sites
 - Daily Dose of Excel, 814
 - David McRitchie's Excel Pages, 814
 - Excel 2007, 811
 - Frontline Systems Web site, 662
 - Google Groups, 811–812
 - IrfanView graphics file viewer, 454
 - Jon Peltier's Excel Page, 814
 - Microsoft newsgroups, 811–812
 - Microsoft Office, 811
 - Microsoft technical support, 811
 - Mr. Excel, 814
 - Pearson Software Consulting, 814
 - Spreadsheet Page, 813
 - Stephen Bullen's Excel Page, 814
 - Wiley Product Technical Support, 807
 - weblog for Daily Dose of Excel, 814
 - WEEKDAY function, 231, 787
 - WEEKNUM function, 231, 787
 - WEIBULL function, 797
 - what-if analysis
 - data tables
 - creating, 637
 - defined, 637
 - one-input data table, 637–640
 - two-input data table, 640–642
 - defined, 635, 649
 - examples, 635–636
 - goal seeking
 - defined, 649
 - single-cell goal seeking, 650–651
 - troubleshooting, 651–652
 - manual, 637
 - Scenario Manager, 643–647
 - Solver
 - appropriate problems for, 652
 - constraints, 654–655
 - defined, 649, 773
 - examples, 653–666
 - installing, 652
 - width property, 738
 - widths of columns
 - changing, 68–69
 - pasting, 85
 - Wiley Product Technical Support, 807
 - Wiley Publishing, Inc. (*Excel 2007 Power Programming with VBA*), 694
 - Window close button, 6
 - WindowActivate event, 748
 - WindowDeactivate event, 748
 - WindowResize event, 748
 - windows
 - arranging, 55, 62
 - closing, 6, 54, 56
 - freezing panes, 64–65
 - maximizing, 6, 54
 - minimizing, 6, 54
 - moving, 55

- windows (*continued*)
 - protecting, 545
 - resizing, 55
 - restoring, 6, 54
 - splitting into panes, 63–64
 - switching among, 55–56
 - unprotecting, 545
 - Watch Window, 65–66
 - worksheet comparisons, 56, 63
- Windows Clipboard, 80, 522
- With-End With construct, 700
- Word documents
 - data sharing, 522–526
 - embedding
 - Word documents in workbooks, 526–527
 - workbooks in Word documents, 527–530
- WordArt
 - inserting, 452–453
 - selecting, 453
- workbooks
 - accepting changes, 538
 - adding worksheets, 57
 - add-ins, 771–774
 - AutoRecover feature, 136
 - backups, 136–137, 141–142
 - change history, 535
 - changing default number of worksheets, 58
 - chart sheets, 4
 - closing, 6, 141, 764–765
 - Compatibility Checker, 140–141
 - Compatibility Pack, 142–143
 - converting into add-ins, 771–774
 - creating, 19, 131–132
 - defined, 4
 - deleting worksheets, 57
 - digital signatures, 140, 548–549
 - Document Inspector, 140, 547–548
 - embedding in Word documents, 527–530
 - encrypting, 140, 543–544
 - events
 - Activate, 747
 - AddinInstall, 747
 - AddinUninstall, 747
 - BeforeClose, 747, 750
 - BeforePrint, 747
 - BeforeSave, 747, 750
 - Deactivate, 747
 - NewSheet, 747, 749
 - Open, 748–749
 - SheetActivate, 748–749
 - SheetBeforeDoubleClick, 748
 - SheetBeforeRightClick, 748
 - SheetCalculate, 748
 - SheetChange, 748
 - SheetDeactivate, 748
 - SheetFollowHyperlink, 748
 - SheetSelectionChange, 748
 - WindowActivate, 748
 - WindowDeactivate, 748
 - WindowResize, 748
 - file formats, 142
 - finalizing, 140, 547
 - hyperlinks, 516–518
 - inspecting, 547–548
 - linking, 499–505
 - names, 137
 - opening, 53–54, 132–135
 - password-protection, 137–138, 539, 543–544
 - permissions, 140, 540
 - Personal Macro Workbook, 692–693
 - printing, 169
 - properties, 139
 - protecting, 60, 137–138, 539, 543–545
 - read-only, 532–533
 - rejecting changes, 538
 - samples on CD-ROM, 800–806
 - saving
 - all workbooks, 764–765
 - for older version of Excel, 143
 - options for saving, 136
 - as PDF file, 546–547
 - suggested frequency of saves, 24, 136
 - as XPS file, 547
 - sharing, 33, 533–536
 - sheet tabs, 4, 6
 - tabs, 4, 6
 - templates
 - applying, 146–148
 - creating, 149–153
 - custom, 149–153
 - default templates, 149–151
 - defined, 145
 - downloading, 146
 - locking formula cells, 152
 - Microsoft Office Online, 146
 - modifying, 148–149, 152
 - opening template files, 148
 - saving, 152–153
 - viewing, 145–146
 - worksheets, 149, 151
 - tracking changes, 535–538
 - unlinking, 503
 - unprotecting, 545
 - updating, 535
 - VBA, 764–765
 - worksheets, 4
 - XLSX file extension, 4
- WORKDAY function, 231, 787

- workgroups
 - accepting changes, 538
 - file reservation, 532–533
 - file sharing, 532–533
 - multiuser applications, 532
 - networks, 531–532
 - rejecting changes, 538
 - shared workbooks, 33, 533–536
 - tracking changes, 535–538
- worksheets
 - accessing, 4
 - activating, 56–57
 - active area, 156
 - adding to workbooks, 57
 - arranging, 58–59
 - background images, 121–122, 457
 - cells
 - active cell (defined), 7
 - active cell indicator, 6
 - addresses of, 7
 - blank cells, 76, 252, 553
 - borders, 79, 119–121
 - colors, 118–119
 - contents of, 39–41, 119, 205, 478–479
 - counting, 252–255, 763–764
 - data types, 35–39
 - defined, 4, 7, 71
 - dependents, 563–564
 - drop-down lists, 484–485
 - filling with repeating characters, 479
 - finding, 77–78, 560–561
 - gridlines, printing, 165
 - joining, 210
 - linking controls to cells, 738
 - locking, 540–541
 - merging, 117
 - monitoring, 65–66
 - Name box, 6–7
 - number of, 35
 - precedents, 562–563
 - preventing certain cells from printing, 170
 - prompting for a cell value, 762
 - protecting, 540–541
 - scenarios, 645
 - selecting, 76–77, 816–817
 - shrinking text to fit a cell, 116–117
 - tracing cell relationships, 562–564
 - unlocking, 540–541
 - wrapping text to fit a cell, 116
 - zeros, distinguishing from blank cells, 279
 - changing default number of, 58
 - columns
 - adding, 66–67
 - deleting, 67
 - headers, 166
 - hiding, 67–68
 - inserting, 66–67
 - letters, 6–7
 - selecting, 73, 759–760
 - titles, 164–165
 - unhiding, 68
 - widths, 68–69, 85
 - comparing, 56, 63
 - consolidating, 505–511
 - copying, 59
 - creating, 19–20
 - data entry, 19–21
 - defined, 4
 - deleting, 57
 - draw layer
 - defined, 4, 35, 443
 - Shapes, 441, 443
 - events
 - Activate, 751
 - BeforeDoubleClick, 751
 - BeforeRightClick, 751, 753
 - Calculate, 751
 - Change, 751–752
 - Deactivate, 751
 - FollowHyperlink, 751
 - PivotTableUpdate, 751
 - SelectionChange, 751–753
 - formatting, 21–22
 - hiding, 59–60
 - hyperlinks, 516–518
 - inserting, 57
 - listing, 56
 - moving, 59
 - moving around in, 7–8, 816
 - navigating, 7–8, 816
 - outlines
 - adding data to, 496
 - collapsing, 492–493, 496
 - creating, 491–496
 - defined, 491
 - deleting, 494, 496
 - expanding, 496
 - hiding outline symbols, 494, 497
 - levels of, 494–496
 - password-protection, 539–541
 - printing
 - active sheet(s), 169
 - background images, 163
 - cell gridlines, 165
 - entire workbook, 169
 - preventing certain cells from printing, 170
 - preventing objects from printing, 170–171
 - print area, 162
 - Print Preview, 156
 - Quick Print, 155–156

- worksheets, printing (*continued*)
 - row and column headers, 166
 - row and column titles, 164–165
 - scaling printed output, 165
 - selection, 169
 - step-by-step example, 23–24
 - watermarks, 163–164
 - protecting, 539–541
 - rearranging, 58–59
 - renaming, 58
 - rows
 - adding, 66–67
 - alternate-row shading, 436–437
 - deleting, 67
 - headers, 166
 - height, changing, 68–69
 - hiding, 67–68
 - inserting, 66–67
 - numbers, 6–7
 - selecting, 73, 759–760
 - titles, 164–165
 - unhiding, 68
 - sheet tabs
 - colors, 58
 - defined, 4
 - inserting, 6
 - scroll buttons, 6
 - size limits, 26
 - spell checking, 569–570
 - templates, 149, 151
 - unhiding, 59–60
 - unprotecting, 542
 - user permissions, 542–543
 - views
 - custom views, 171–172
 - freezing panes, 64–65
 - multiple views of same worksheet, 62–63
 - named views, 171–172
 - Normal View, 157–158
 - Page Break Preview, 157, 159–160
 - Page Layout View, 29, 157–159
 - split panes, 63–64
 - worksheet comparisons, 56, 63
 - zoom percentage, 61–62
 - zooming in/out, 61–62
 - wrapping text to fit a cell, 116
 - writing VBA code, 694–695
- ## X
- XIRR function, 790
 - XLSX file extension, 4
 - XNPV function, 790
 - XPS file, 547
 - XY (scatter) charts, 371–372
- ## Y
- YEAR function, 231, 787
 - YEARFRAC function, 231, 787
 - YIELD function, 790
 - YIELDDISC function, 790
 - YIELDMAT function, 790
- ## Z
- zeros
 - distinguishing from blank cells, 279
 - leading zeros, 475
 - Zoom control, 6, 34
 - zoom percentage, 61–62
 - zooming in/out on worksheets, 61–62
 - z-Test, 677
 - ZTEST function, 797