

Shelly Cashman: Microsoft Excel 2016

Module 1: Creating a Worksheet and a Chart





Objectives (1 of 2)

- Describe the Excel worksheet
- Enter text and numbers
- Use the Sum button to sum a range of cells
- Enter a simple function
- Copy the contents of a cell to a range of cells using the fill handle
- Apply cell styles
- Format cells in a worksheet



Objectives (2 of 2)

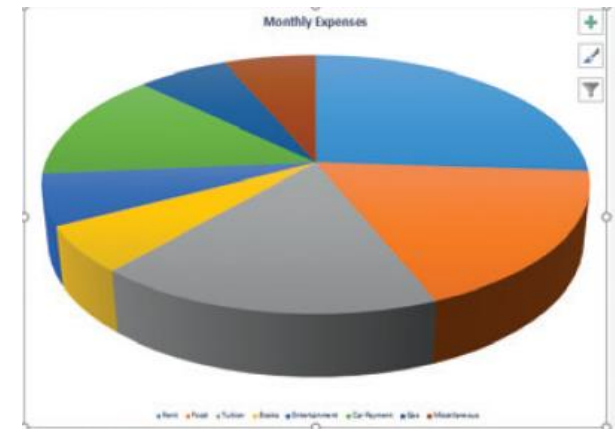
- Create a 3-D pie chart
- Change a worksheet name and sheet tab color
- Change document properties
- Preview and print a worksheet
- Use the AutoCalculate area to display statistics
- Correct errors on a worksheet



Project – Personal Budget Worksheet and Chart

Excel spreadsheet titled "Linda Fox Budget - Excel" showing a "Personal Budget Worksheet" with "Monthly Estimates".

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Income													
Wages	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$17,005.44
Dividends	4,029.71	-	-	-	-	-	4,029.71	-	-	-	-	-	8,059.42
Total	\$5,446.83	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$5,446.83	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$25,064.86
Expenses													
Rent	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$410.00	\$4,920.00
Food	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	280.00	3,360.00
Tuition	1,500.00	-	-	-	300.00	-	1,500.00	-	-	-	-	-	3,300.00
Books	500.00	-	-	-	100.00	-	500.00	-	-	-	-	-	1,100.00
Entertainment	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,200.00
Car Payment	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	2,585.64
Gas	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,200.00
Miscellaneous	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,200.00
Total	\$3,205.47	\$1,205.47	\$1,205.47	\$1,205.47	\$1,005.47	\$1,205.47	\$1,205.47	\$3,205.47	\$1,205.47	\$1,205.47	\$1,205.47	\$1,205.47	\$18,805.64
Net	\$2,241.36	\$211.65	\$211.65	\$211.65	\$(188.35)	\$211.65	\$4,241.36	\$(1,788.35)	\$211.65	\$211.65	\$211.65	\$211.65	\$6,199.22





Roadmap

- Enter text in a blank worksheet
- Calculate sums and use formulas in the worksheet
- Format text in the worksheet
- Insert a pie chart into the worksheet
- Assign a name to the worksheet tab
- Preview and print the worksheet



Selecting a Cell

- Make the cell active
 - Use the mouse
 - Use the arrow keys
- Cell is active when a heavy border surrounds the cell



Entering Text (1 of 4)

- To Enter the Worksheet Titles
 - Run Excel and create a blank workbook in the Excel window
 - Click the A1 to make the cell A1 the active cell
 - Type desired text
 - Click the ENTER button to complete the entry and enter the worksheet title
 - Click cell A2 to select it
 - Click the ENTER button to complete the entry and enter the worksheet subtitle



Entering Text (2 of 4)

- To Enter Column Titles
 - Click cell A3 and enter a column title
 - Press the RIGHT ARROW key to enter a column title and make the cell to the right the active cell
 - Repeat the previous steps until all column titles are entered. Click the Enter box after entering the last column title



Entering Text (3 of 4)

The screenshot shows the Microsoft Excel interface. The ribbon is set to 'Home'. The 'Font' group shows 'Calibri' font and '11' size. The 'Enter' button is highlighted with a red box and a red arrow. The spreadsheet has a table with the following structure:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Personal Budget Worksheet														
2	Monthly Estimates														
3	Income	January	February	March	April	May	June	July	August	September	October	November	December	Total	
4															
5															
6															
7															
8	Expenses	January	February	March	April	May	June	July	August	September	October	November	December	Total	
9															
10															
11															
12															

A callout box points to the 'Total' cell in row 8, column N, with the text: 'column titles left-aligned in cells'.



Entering Text (4 of 4)

- To Enter Row Titles
 - Click cell A4 and enter a row title
 - Press the DOWN ARROW key to enter a row title and make the cell below the current cell the active cell
 - Repeat the previous steps until all row titles are entered



Entering Numbers

- In Excel, you can enter numbers in Excel to represent amounts
- If a cell entry contains any other keyboard character, Excel interprets it as text and treats it accordingly
- To Enter Numbers
 - Click cell B4 to select it
 - Type desired number and then press the RIGHT ARROW key to enter the data in the selected cell and make the cell to the right the active cell
 - Continue until all numbers are entered

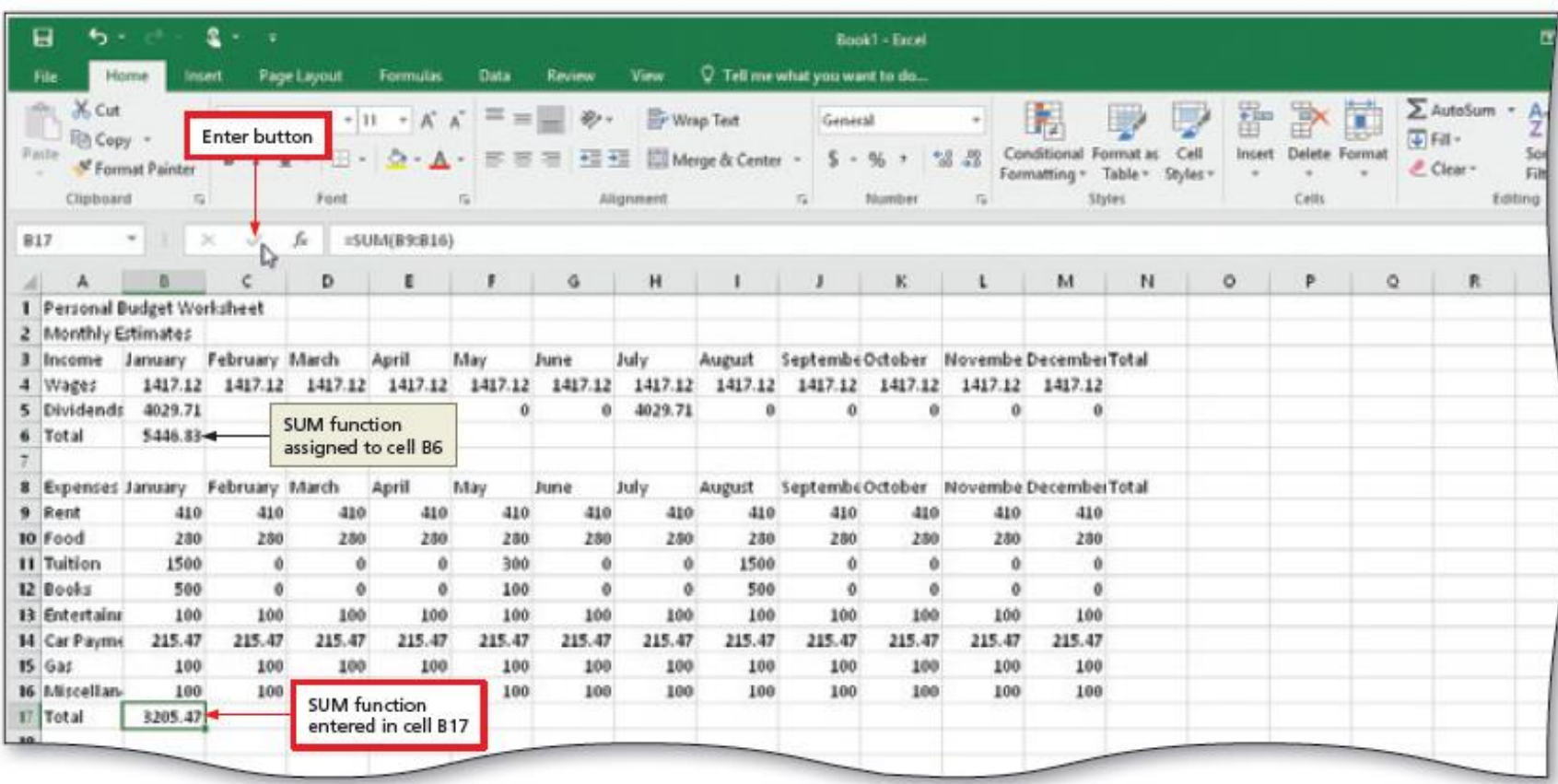


Calculating a Sum (1 of 2)

- To Sum a Column of Numbers
 - Click the first empty cell below the column of numbers to sum
 - Click the Sum button on the HOME tab to display a formula in the formula bar and in the active cell
 - Click the Enter box in the formula bar to enter a sum in the active cell
 - Repeat above steps to enter the SUM function in other locations



Calculating a Sum (2 of 2)





Using the Fill Handle to Copy a Cell to Adjacent Cells (1 of 4)

- To Copy a Cell to Adjacent Cells in a Row
 - With the cell containing the contents to fill across the row active, point to the fill handle to activate it
 - Drag the fill handle to select the destination area to display a shaded border around the source area and the destination area
 - Release the mouse button to copy the SUM function from the active cell to the destination area and calculate the sums
 - Repeat the above steps to copy the SUM function to other ranges

	Expenses	January	February	March	April	May	June	July	August	September	October	November	December	Total
9	Rent	410	410	410	410	410	410	410	410	410	410	410	410	410
10	Food	280	280	280	280	280	280	280	280	280	280	280	280	280
11	Tuition	1500	0	0	0	300	0	0	1500	0	0	0	0	0
12	Books	500	0	0	0	100	0	0	500	0	0	0	0	0
13	Entertain	100	100	100	100	100	100	100	100	100	100	100	100	100
14	Car Paym	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47
15	Gas	100	100	100	100	100	100	100	100	100	100	100	100	100
16	Miscellan	100	100	100	100	100	100	100	100	100	100	100	100	100
17	Total	3205.47	1205.47	1205.47	1205.47	1605.47	1205.47	1205.47	3205.47	1205.47	1205.47	1205.47	1205.47	1205.47
18														
19	Net													
20														

SUM function in range C17:M17



Using the Fill Handle to Copy a Cell to Adjacent Cells (2 of 4)

- To Calculate Multiple Totals at the Same Time
 - Highlight a range at the end of rows or columns of numbers to total
 - Click the Sum button on the HOME tab to calculate and display the sums of the corresponding rows
 - Repeat the above steps to calculate and display the sums of the corresponding rows



Using the Fill Handle to Copy a Cell to Adjacent Cells (3 of 4)

The screenshot shows the Excel interface with the 'Home' tab selected. The ribbon includes options for Clipboard, Font, Alignment, Number, Styles, and Cells. The 'SUM' button in the 'Cells' group is highlighted with a red box and labeled 'SUM button'. The worksheet displays a personal budget with monthly income and expenses. The formula bar shows '=SUM(B9:M9)'. A callout points to the SUM function entered in the range N9:N17.

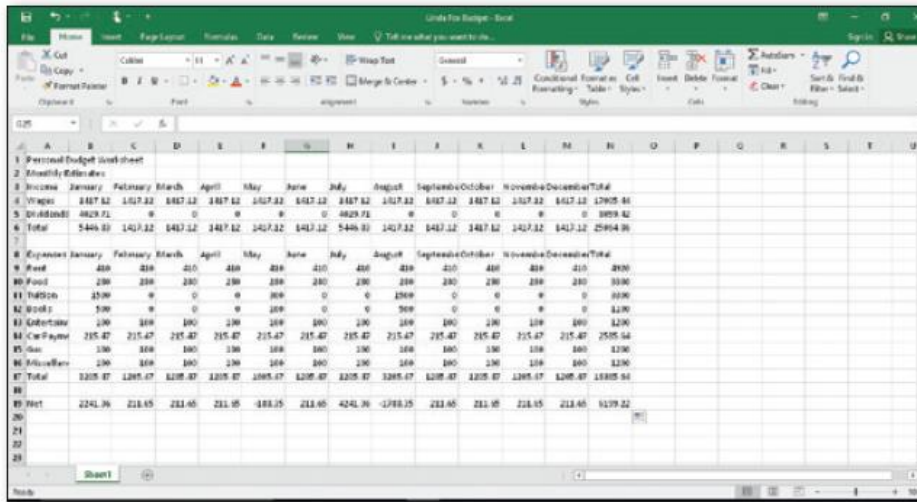
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
1	Personal Budget Worksheet																			
2	Monthly Estimates																			
3	Income	January	February	March	April	May	June	July	August	September	October	November	December	Total						
4	Wages	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	17005.44						
5	Dividends	4029.71	0	0	0	0	0	0	4029.71	0	0	0	0	8059.42						
6	Total	5446.83	1417.12	1417.12	1417.12	1417.12	1417.12	5446.83	1417.12	1417.12	1417.12	1417.12	1417.12	25064.86						
7																				
8	Expenses	January	February	March	April	May	June	July	August	September	October	November	December	Total						
9	Rent	410	410	410	410	410	410	410	410	410	410	410	410	4920						
10	Food	280	280	280	280	280	280	280	280	280	280	280	280	3360						
11	Tuition	1500	0	0	0	0	0	0	1500	0	0	0	0	3000						
12	Books	500	0	0	0	100	0	0	500	0	0	0	0	1100						
13	Entertain	100	100	100	100	100	100	100	100	100	100	100	100	1200						
14	Car Paym	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	215.47	2585.64						
15	Gas	100	100	100	100	100	100	100	100	100	100	100	100	1200						
16	Miscellan	100	100	100	100	100	100	100	100	100	100	100	100	1200						
17	Total	3205.47	1205.47	1205.47	1205.47	1605.47	1205.47	1205.47	3205.47	1205.47	1205.47	1205.47	1205.47	18865.64						
18																				
19	Net																			
20																				
21																				
22																				



Using the Fill Handle to Copy a Cell to Adjacent Cells (4 of 4)

- To Enter a Formula Using the Keyboard
 - Select the cell that will contain the formula
 - Type the formula in the cell to display it in the formula bar and in the current cell and to display colored borders around the cells referenced in the formula
 - Click the cell to the right to complete the formula and to display the result in the worksheet.

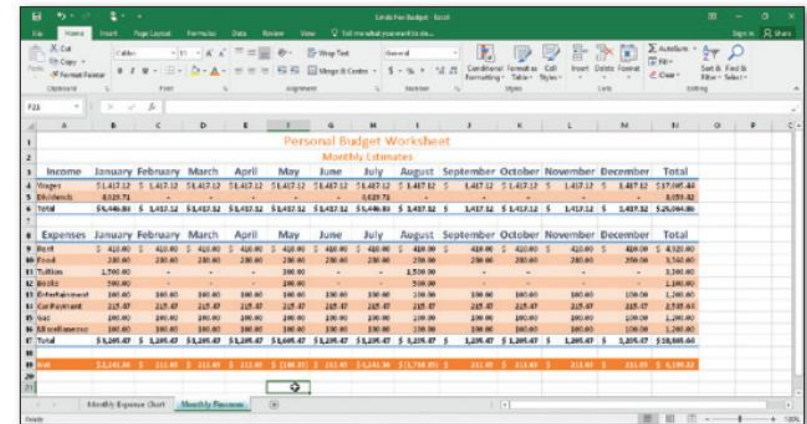
Formatting the Worksheet (1 of 10)



This screenshot shows an Excel worksheet with a standard grid layout. The data is organized into columns for months (January through December) and rows for different budget categories. The text is in a default font, and there are no colors, borders, or other visual enhancements applied to the cells.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Income	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	17,905.64
Expenses	482.91	0	0	0	0	0	0	0	0	0	0	0	482.91
Total	5,446.91	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	25,914.36

• Unformatted Worksheet



This screenshot shows the same Excel worksheet as the previous one, but with extensive formatting. The title 'Personal Budget Worksheet' is centered at the top in a large, bold, orange font. The data is presented with alternating row colors (orange and white) for better readability. The font is a clean, sans-serif style, and the overall layout is more professional and visually appealing.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Income	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	17,905.64
Expenses	482.91	0	0	0	0	0	0	0	0	0	0	0	482.91
Total	5,446.91	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	1,617.32	25,914.36

• Formatted Worksheet



Formatting the Worksheet (2 of 10)

- To Change a Cell Style
 - Click the desired cell and then click the Cell Styles button on the HOME tab to display the Cell Styles gallery
 - Point to the Title cell style in the Titles and Headings area of the Cell Styles gallery to see a live preview of the cell style in the active cell
 - Click the Title cell style to apply the cell style to the active cell



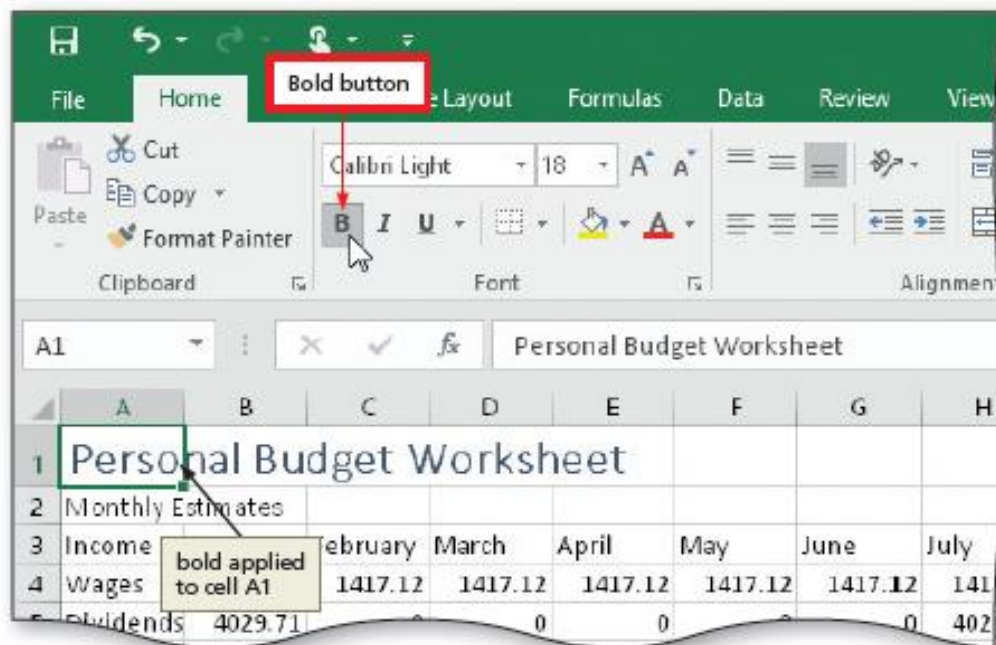
Formatting the Worksheet (3 of 10)

- To Change the Font
 - Click the desired cell for which you want to change the font
 - Click the Font arrow on the HOME tab to display the font gallery
 - Point to desired font in the Font gallery to see a live preview of the selected font in the active cell
 - Click the desired font to change the font of the selected cell



Formatting the Worksheet (4 of 10)

- To Apply Bold Style to a Cell
 - Click a cell to bold and then click the Bold button on the HOME tab to change the font style of the active cell to bold





Formatting the Worksheet (5 of 10)

- To Increase the Font Size of a Cell Entry
 - With the desired cell selected, click the Font Size arrow on the HOME tab to display the Font Size gallery
 - Point to the desired font size in the Font Size gallery to see a live preview of the active cell with the selected font size
 - Click the desired font size in the Font Size gallery to change the font size in the active cell

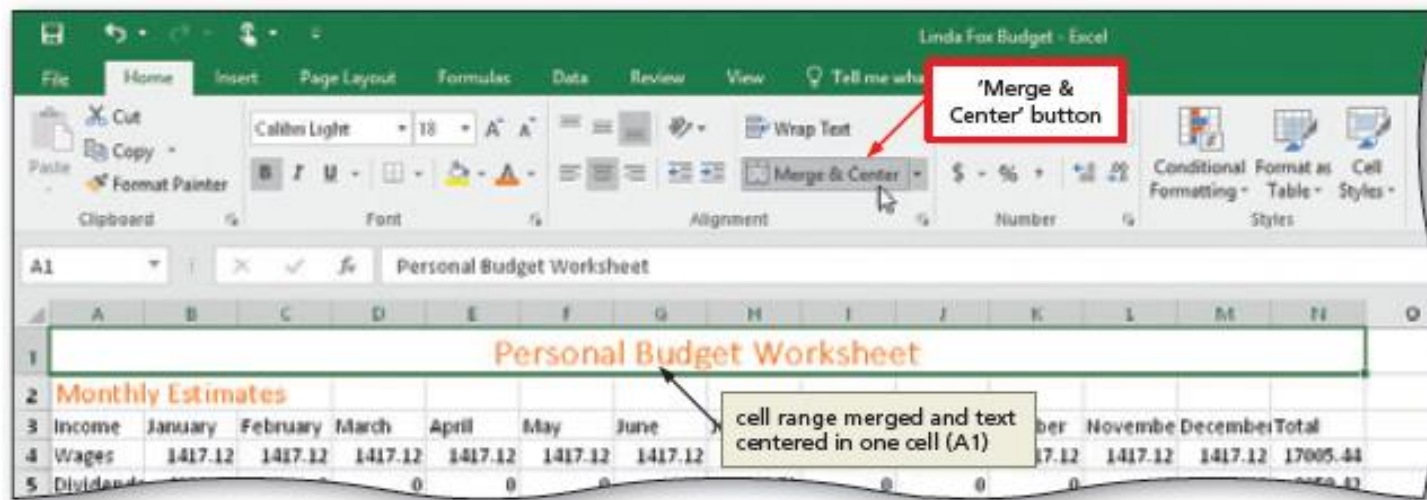


Formatting the Worksheet (6 of 10)

- To Change the Font Color of a Cell Entry
 - Select the cell for which you want to change the font color and then click the Font Color arrow on the HOME tab
 - Point to the desired color in the Theme Colors area of the Font Color gallery to see a live preview of the font color
 - Click the desired theme to change the font color of the in the active cell

Formatting the Worksheet (7 of 10)

- To Center Cell Entries across Columns by Merging Cells
 - Drag to select the range of cells you want to merge and center
 - Click the 'Merge & Center' button on the HOME tab to merge the selected range and center the contents of the leftmost cell across the selected columns
 - Repeat the above steps to merge and center other titles





Formatting the Worksheet (8 of 10)

- To Format Rows Using Cell Styles
 - Click a cell and drag to select the desired range
 - Click the Cell Styles button on the HOME tab to display the Cell Styles gallery
 - Click a Heading cell style to apply the cell style to the selected range and then click the Center button on the HOME tab to center the column headings in the selected range
 - Repeat the above steps to format other ranges



Formatting the Worksheet (9 of 10)

- To Format Numbers in the Worksheet
 - Select the range of cells containing numbers to format
 - Click the desired format on the HOME tab to apply the format to the cells in the selected range

The screenshot shows the Excel interface with the 'HOME' tab selected. The 'Numbers' group on the ribbon has the 'Accounting Number Format' button highlighted with a red box and a callout. The worksheet contains a budget table with columns for months and a 'Total' column. A range of cells (B5:N5) is selected, indicated by a red box and a callout. The data in the table is as follows:

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Income													
Wages	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$1,417.12	\$17,005.44
Dividends	4029.71	0	0	0	0	0	0	4029.71	0	0	0	0	8059.42
Total	5446.83	1417.12	1417.12	1417.12	1417.12	1417.12	1417.12	5446.83	1417.12	1417.12	1417.12	1417.12	25064.86
Expense													
Rent	410	410	410	410	410	410	410	410	410	410	410	410	4920
Food	280	280	280	280	280	280	280	280	280	280	280	280	3360
Tuition	1500	0	0	0	300	0	0	1500	0	0	0	0	3300



Formatting the Worksheet (10 of 10)

- To Adjust the Column Width
 - Point to the boundary on the right side of the column of which you want to change the size to change the mouse pointer to a split double arrow
 - Double-click on the boundary to adjust the width of the column to the width of the largest item in the column
- To Use the Name box to Select a Cell
 - Click the Name box in the formula bar and then type the cell reference of the cell you wish to select
 - Press the ENTER key to change the active cell in the Name box



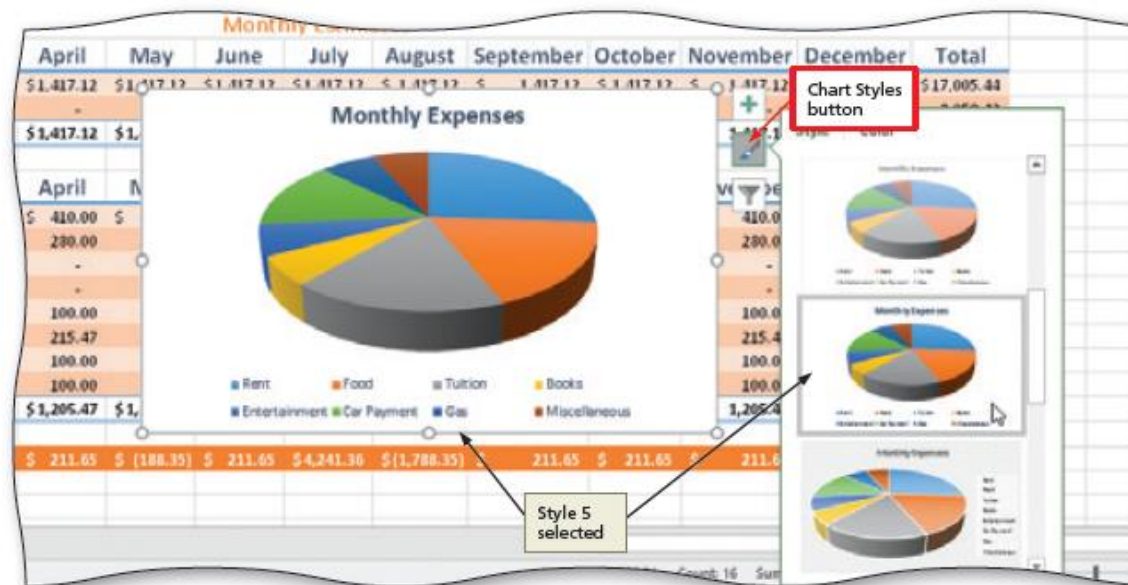
Adding a Pie Chart to the Worksheet (1 of 2)

- To Add a 3-D Pie Chart
 - Select the range for the 3-D pie chart
 - Click the 'Insert Pie or Doughnut Chart' button on the INSERT tab to display the Insert Pie or Doughnut Chart gallery
 - Click the Insert Pie or Doughnut Chart gallery to insert the chart
 - Click the chart title to select it
 - Type a chart title and then press the ENTER key to change the title
 - Deselect the chart title



Adding a Pie Chart to the Worksheet (2 of 2)

- To Apply a Style to a Chart
 - Click the Chart Styles button to display the Chart Styles gallery
 - Click a style in the Chart Styles gallery to change the chart style to the desired style





Changing the Sheet Tab Names (1 of 3)

- To Move a Chart to a New Sheet
 - Click the Move Chart button on the CHART TOOLS DESIGN tab
 - Click New sheet to select it and then type a title for the worksheet that will contain the chart
 - Click the OK button to move the chart to a new chart sheet with a new sheet tab name



Changing the Sheet Tab Names (2 of 3)

- To Change the Sheet Tab Name
 - Double-click the sheet tab you wish to change in the lower-left corner of the window
 - Type a new name as the worksheet tab name
 - Right-click the sheet tab in the lower-left corner of the window to display a shortcut menu
 - Point to Tab Color in the Tab Color gallery
 - Click the desired color in the Theme Colors area to change the color of the tab



Changing the Sheet Tab Names (3 of 3)

- Document Properties
 - To Change Document Properties
 - Click File on the ribbon to open the Backstage view and then click the Info tab in the Backstage view to display the Info gallery
 - Click to the right of the property category to display a text box
 - If necessary, click the Properties button to display the Properties menu



Printing a Worksheet

- To Preview and Print a Worksheet in Landscape Orientation
 - In Backstage view, click the Print tab to display the Print gallery
 - Verify that the printer listed on the Printer Status button will print a hard copy of the workbook. If necessary, click the Printer Status button to display a list of available printer options and then click the desired printer to change the currently selected printer
 - Click the Portrait Orientation button in the Settings area and then select Landscape Orientation to change the orientation of the page to landscape.
 - Click the No Scaling button and then select 'Fit Sheet on One Page' to print the entire worksheet on one page
 - Click the Print button in the Print gallery to print the worksheet in landscape orientation on the currently selected printer
 - When the printer stops, retrieve the hard copy



AutoCalculate

- Using the AutoCalculate Area to Determine a Maximum
 - Select the range of which you wish to determine a maximum, and then right-click the status bar to display the Customize Status Bar shortcut menu
 - Click Maximum on the shortcut menu to display the Maximum value in the range in the AutoCalculate area of the status bar



Correcting Errors

- Correcting Errors after Entering Data into a Cell
 - If the entry is short, select the cell, retype the entry correctly
 - If the entry is long, use the EDIT mode using in-cell editing
- To Clear the Entire Worksheet
 - Click the Select All button on the worksheet
 - Click the Clear button and then click Clear All