It! Series

Lessons authored to work with any version, any application.

Third Edition

Spreadsheets

Hands-on Spreadsheet Lessons for Workplace Readiness

B.E. PUBLISHING

The Development Team at B.E. Publishing

It! Series
3rd Edition

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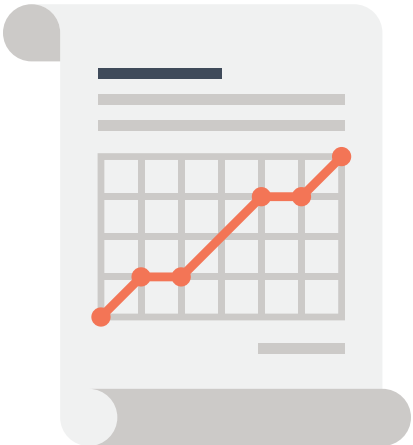
Introduction

Welcome to It! Series, 3E: Spreadsheets

The **It! Series, 3E** is a comprehensive, skills-based program designed to help you use your computer applications skills to produce professional documents. With an emphasis on real-world scenarios and workplace readiness, the **It! Series, 3E** showcases a variety of practical uses for five key business computer applications: word processing, spreadsheets, presentations, desktop publishing, and databases.

It! Series, 3E: Spreadsheets will show you how to apply your spreadsheets skills in your own lives. Across over 40 all-new lessons, you will explore the power of spreadsheets as you develop professional documents like sales projections and payroll registers, and encounter relevant topics like school enrollment and budgeting for college. From creating formulas to working with charts and graphs, **It! Series, 3E: Spreadsheets** will give you the tools you need to make spreadsheets work for you.



New Skills

These hands-on lessons are organized into a hierarchical skill-level format. With few exceptions, most of the lessons in this book build upon skills practiced in previous lessons.

Prerequisite Skills

This book is recommended for students in grades 9–12. It is expected that students have a basic working knowledge of using any version of any spreadsheet application.

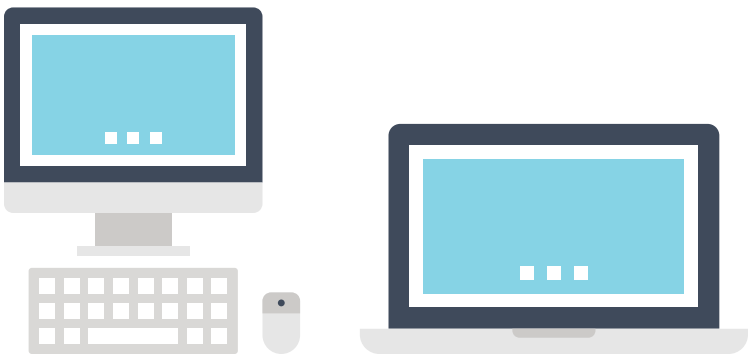
Materials Required

To use this textbook, students will need the following:

- Internet access
- Desktop or laptop computer
- Spreadsheet application
- Printer (optional)

Software Note

The instructions for all lessons are written in a generic format so they can be applied to any version of Microsoft Excel, Google Sheets, or equivalent spreadsheet application.



Using the Companion Website

This textbook is designed to be used in conjunction with the Companion Website (**www.MyCompanionSite.com**). You may be required to download worksheets or image files.

To download the necessary resources:

1. Go to **www.MyCompanionSite.com**.
2. Click on the **It! Series, 3E: Spreadsheets** thumbnail.
3. Download and open the appropriate files.

Instructor Login & Resources

Instructors have access to a password-accessible instructor resource section via the Companion Website.

Resources include:

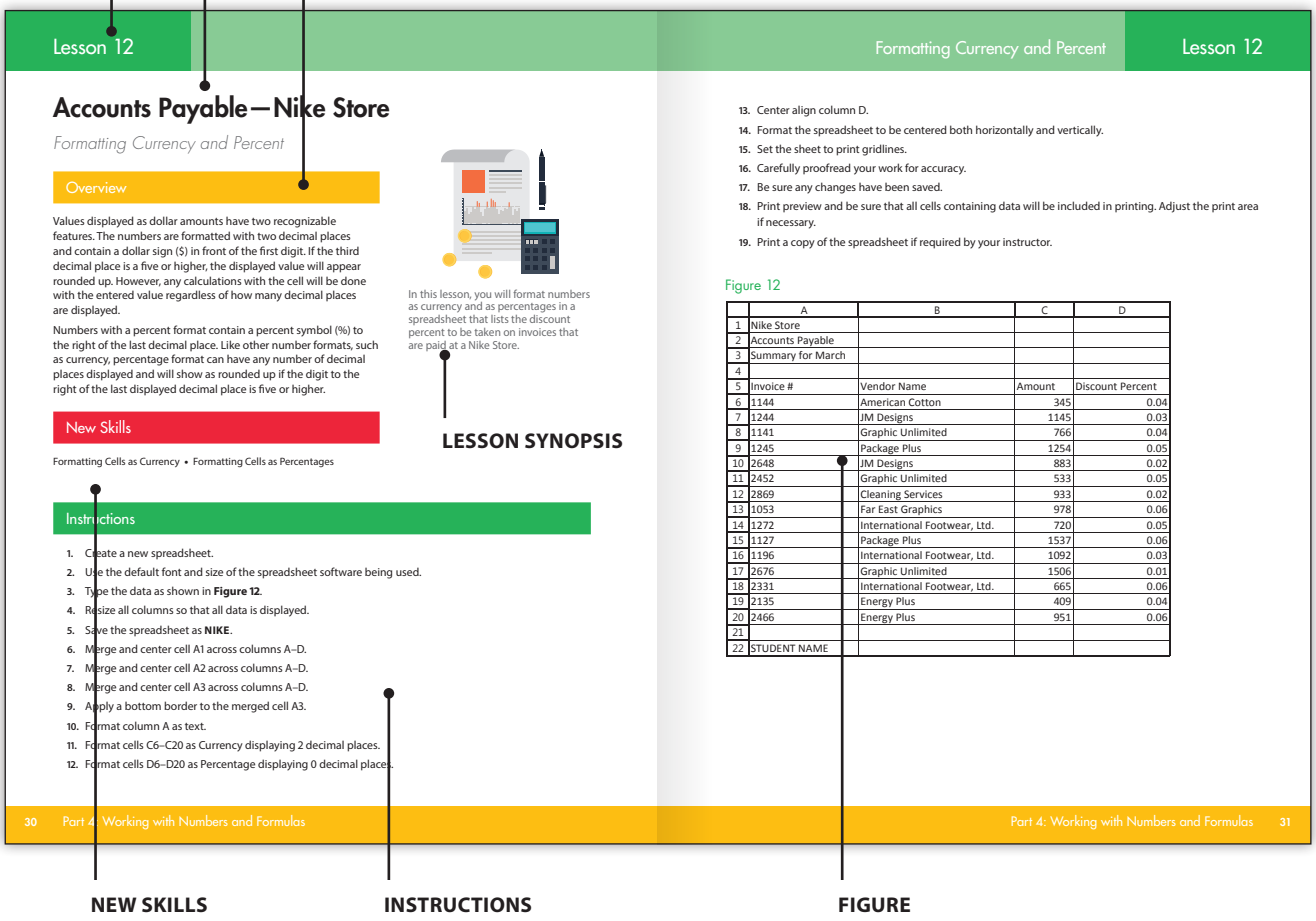
- Lesson Answer Keys
- Lesson Grading Rubrics
- Lesson Source Files
- Review Worksheets, Assessments, and Answer Keys

File Management

Files can be stored within folders on hard drives, network drives, external drives (e.g. USB sticks), or in the cloud (e.g. Google Drive). Before you begin to create files for each lesson, establish and name an appropriate folder—such as "Spreadsheet Lessons"—for saving and storing all your files.

Understanding the Format of This Textbook

The lessons in this textbook have been organized into an easy-to-read, self-guided, visual format where you practice new skills and learn by doing. This textbook is divided into an introductory section and five additional parts, each containing a set of individual lessons that focus on working with different aspects of spreadsheets.



Curriculum Guide

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Spreadsheets			
Part 1: Introduction to Spreadsheets			
Part 2: Worksheet Basics and Page Layout			
1	**Generation What?**	*Creating Your First Workbook*	Creating, Naming, and Saving a Workbook • Identifying Rows, Columns, and Cell Addresses • Previewing and Printing a Worksheet • Closing a Worksheet
2	**NBA Hall of Fame**	*Working with Columns and Rows*	Resizing Rows and Columns • Centering Text Vertically in a Cell • Wrapping Text in a Cell • Setting the Print Area
3	**So You Think You Can Dance Season Winners**	*Editing Basics*	Inserting and Deleting Rows • Selecting Cells • Using Cut • Using Copy • Using Paste
4	**Best-Selling Books**	*Editing Your Workbook*	Inserting and Deleting Columns • Freezing Panes • Adding Worksheets • Renaming a Worksheet
5	**Best-Selling Books 2**	*Retrieving and Proofing Your Worksheet*	Revising, Renaming, and Saving an Existing Workbook • Using Spell Check and Thesaurus • Changing Page Orientation • Adjusting Page Scaling
6	**Amazon**	*Using Headers and Footers*	Inserting a Header • Inserting a Footer • Changing Page Margins • Printing Gridlines • Printing Row and Column Headings
Part 3: Formatting Data			
7	**Market Analysis**	*Formatting Data*	Changing Font • Changing Font Size • Applying Bold, Italics, and Underline • Aligning Text in Columns Horizontally
8	**AT40**	*Formatting Cells and Centering a Page*	Formatting Cells as Text • Centering on a Page Horizontally and Vertically
9	**TV Legend Interviews**	*Using Additional Number Formats*	Formatting Cells as Duration • Using Merge and Center • Adding Borders
10	**Excel Art**	*Formatting Cells*	Applying Fill Color • Applying Font Color
Part 4: Working with Numbers and Formulas			
11	**Forever 21**	*Formatting Numbers*	Formatting Cells as Numbers with Zero Decimals • Increasing/Decreasing Decimal Places
12	**Accounts Payable—Nike Store**	*Formatting Currency and Percent*	Formatting Cells as Currency • Formatting Cells as Percentages
13	**Top 10 Most Expensive Flights**	*Applying Accounting Style*	Formatting Cells as Accounting
14	**Party Invitation List**	*Sorting Data*	Sorting Data in Ascending Order • Sorting Data in Descending Order • Selecting Non-Adjacent Cells
15	**You Say It's Your Birthday**	*Formatting Dates*	Formatting Cells as Dates

Curriculum Guide

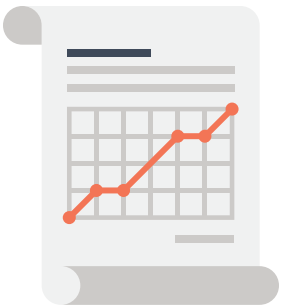
LESSON			NEW SKILLS
16	**Major Holidays**	*Sequencing Made Easy*	Using AutoFill to Complete a Sequence
17	**Presentation Rubric**	*Using Basic Calculations*	Using Basic Formulas: Addition • Copying and Pasting Formulas • Displaying Formulas • Using Cell References
18	**My Check Register**	*Adding Adjacent Cells*	Using AutoSum • Using SUM • Using Basic Formulas: Subtraction
19	**Town Camp Summer Payroll**	*Using Multi-Math Formulas*	Using Basic Formulas: Multiplication • Using Parentheses for Multi-Math Formulas
20	**Event Budget**	*Practicing Cell References*	There are no new skills being introduced in this reinforcement lesson.
21	**Basic Baseball Stats**	*Calculating Statistics*	Using Basic Formulas: Division
22	**Accounts Payable**	*Commonly Used Formulas*	Using Average, Maximum, and Minimum
23	**Skittles**	*Formatting Fractions*	Formatting Cells as Fractions
24	**2016 World Series Champions**	*Using the Order of Operations*	Creating Complex Formulas
25	**Teen World Payroll Register**	*Computing Payroll Amounts*	Identifying and Using Appropriate Formulas
26	**Sales Projection**	*Working with Absolute Cell Reference*	Using Absolute Cell References
27	**Forever 21 Part 2**	*Determining the Number of Items*	Using the COUNTIF Function
28	**The Ultimate Pay Raise**	*Working with Conditions*	Using Conditions in Formulas
29	**Dream House Mortgage**	*Determining Loan Payments*	Using the Payment (PMT) Function
30	**College Savings**	*Determining the Future Value of Savings*	Using the Future Value (FV) Function
31	**Town Camp Summer Payroll 2**	*Calculating Payroll Deductions*	Using the ROUND Function • Rotating Cell Orientation
32	**Ice Cream Shop Inventory**	*Creating Predictions and Estimations*	Using the Forecast Function
Part 5: Working with Shapes and Elements			
33	**Dinner Menu**	*Working with Illustrations*	Inserting a Clip Art Image
34	**Paying the Bills**	*Annotating a Worksheet*	Inserting and Removing Comments or Notes for Cells
35	**Take a Ride**	*Adding Text Elements*	Inserting WordArt
36	**Binge Watch List**	*Adding Shapes*	Inserting Shapes
37	**Shoes, Shoes, Shoes!**	*Using Multiple Worksheets*	Referencing Cells from Other Worksheets • Printing Multiple Worksheets

Curriculum Guide

LESSON			NEW SKILLS
Part 6: Working with Charts and Graphs			
38	**Most Popular Features**	*Creating a Pie Chart*	Inserting a Pie Chart • Formatting a Pie Chart
39	**Sales History**	*Creating a Line Graph*	Creating a Line Graph • Formatting a Line Graph • Using the Fill Effects Feature in a Graph
40	**Sales Forecast**	*Creating a Column Chart*	Creating a Column Chart • Formatting a Column Chart • Aligning Text in a Chart
41	**Fast-Food Nutrition**	*Creating a Bar Chart*	Inserting a Bar Chart • Formatting a Bar Chart
42	**Exercise Habits**	*Creating an Exploded Pie Chart*	Inserting an Exploded Pie Chart • Formatting an Exploded Pie Chart
43	**Customer Traffic Pattern Analysis**	*Creating, Editing, Collaborating, and Sharing*	Creating, Editing, and Sharing an Online Spreadsheet • Collaborating Using Online Spreadsheet Software
44	**Competitive Pricing Comparisons**	*Using Online Charts and Graphs*	Creating a Bar Chart in an Online Spreadsheet
45	**Comparing Enrollment**	*Creating an Infographic*	Creating an Infographic • Formatting an Infographic
46	**Student Enrollment**	*Forecasting Data*	Creating a Forecast Worksheet

Spreadsheets

Part 1	Introduction to Spreadsheets	
Hands-on Lessons:		
Part 2	Worksheet Basics and Page Layout	Lessons 1 – 6
Part 3	Formatting Data	Lessons 7 – 10
Part 4	Working with Numbers and Formulas	Lessons 11 – 32
Part 5	Working with Shapes and Elements	Lessons 33 – 37
Part 6	Working with Charts and Graphs	Lessons 38 – 46



What are Spreadsheets?

A spreadsheet is a document organized into rows and columns in which data can be manipulated and used in calculations. A spreadsheet will not only organize information, but will complete a variety of mathematical formulas for the user, such as calculating totals, averages, percentages, budgets, and complex financial and scientific formulas. Spreadsheet software was first developed to complete accounting tasks, but today it has countless purposes for both personal use and for business.

Spreadsheet software can be used for a simple table that organizes a weekly fundraiser schedule, or it can be used for a complex series of workbooks that arrange and calculate financial information for a major company. With spreadsheets, creating business models, graphs, charts, and reports becomes a quick and efficient task.

Why Learn Spreadsheets?

Along with word processing software and databases, spreadsheet software is commonly used by businesses. Spreadsheets simplify many complicated tasks. For instance, a student could use spreadsheet software to keep track of her grades in a course, or the manager of a small business could use it to keep track of salary expenses for his employees. With spreadsheets, users have the ability to enter data, perform calculations, analyze results, and display this information easily through graphs, charts, and infographics.

Using spreadsheet software requires you to add text and data using an input device, such as a keyboard. In these lessons, you will not only improve your knowledge of spreadsheets, but by practicing proper touch typing techniques on the numeric keypad, you will improve your ability to input data efficiently and accurately.

Types of Spreadsheet Software

One of the most popular spreadsheet programs for businesses is Microsoft Excel because of its powerful features, which include sorting and filtering data and formatting numbers and graphs. Another option is Google Sheets, a free spreadsheets application in which users create and edit spreadsheets online. While Google Sheets may be more limited than Microsoft Excel in terms of its robust features, this application is the perfect tool for collaboration and sharing since multiple people can work simultaneously on the same spreadsheet. Before deciding which spreadsheet software to use, it is important to consider what kind of spreadsheet needs to be created and what features are required to create it.

The Most Popular Spreadsheet Software

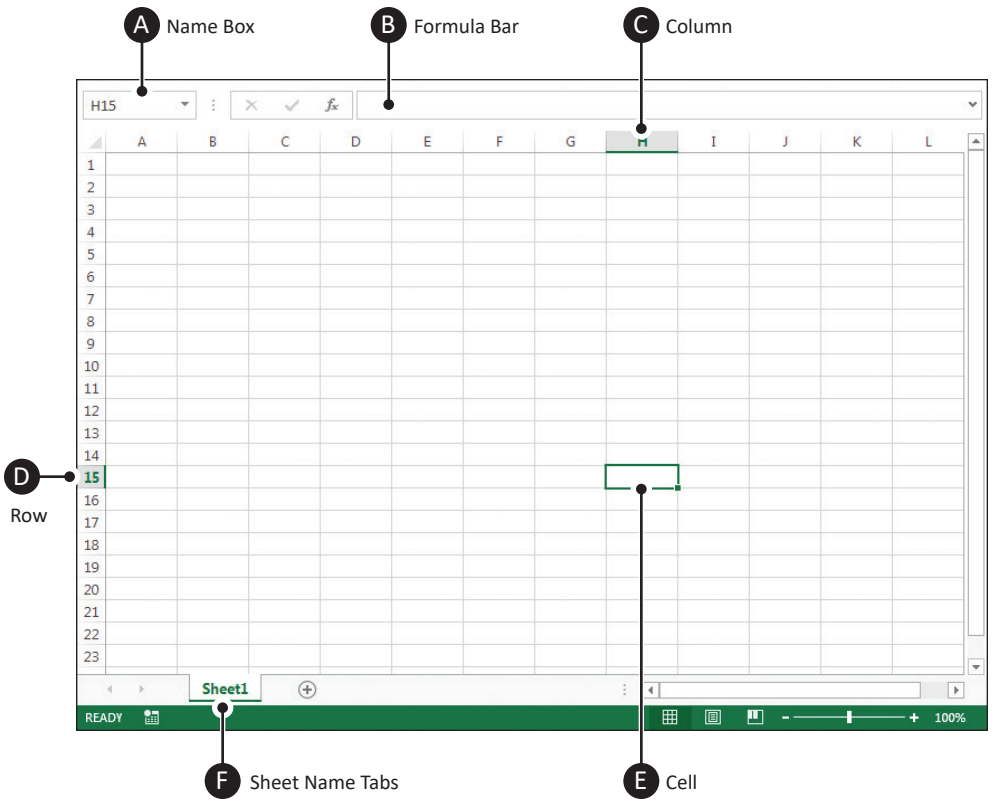
Microsoft Excel is a widely used spreadsheet software designed by Microsoft. Excel is a component of the Microsoft Office Suite, but can be used as a stand-alone product. Released in 1982, Excel allows users to organize, format, and calculate data with formulas broken up by rows and columns. Excel works with Windows and Macintosh operating systems. With newer versions of Excel, users can also collaborate on the same spreadsheet in real time.

Numbers is a spreadsheet software that was developed by Apple, Inc. It is part of the iWork productivity suite, and runs on Apple's OS X and iOS operating systems. The first version of Numbers was released in 2007. Numbers uses what is known as a free-form "canvas" approach that demotes tables to one of many different media types placed on a page.

Google Sheets is a free web-based application in which spreadsheets can be created, edited, and stored online. Files can be accessed from any computer with an Internet connection and a full-featured web browser. Google Sheets was released to the public in 2007, and is integrated with Google Drive.

Identifying Parts of a Standard Spreadsheet

A spreadsheet is where data is entered, organized, and calculated. Spreadsheets are divided into columns and rows. The intersection point of a column and row is a cell. Data is entered and stored in individual cells. The illustration below is from Microsoft Excel. Depending on the spreadsheet software being used, visual references will vary.



SPREADSHEET KEY

A Name Box
Displays the name or location of the active cell

B Formula Bar
Where data and formulas are entered and edited, which then appears in the active cell

C Column
Vertical cells that are labeled by letters

D Row
Horizontal cells that are labeled by numbers

E Cells
The intersection of a row and column which is identified by a letter and number

F Sheet Name Tabs
Can be added or deleted, renamed, and reordered

Hardware Requirements for Spreadsheet Applications

In this textbook, you will create a series of spreadsheets that require the use of spreadsheet software. As with all software applications, there are certain hardware requirements necessary to complete this task.

Hardware refers to the physical elements of a computer, so in this case, in order for you to use spreadsheet software, you will need some type of computer to run the software, such as a desktop computer, tablet, or mobile phone. Some input devices that you would need include a mouse and a keyboard. Of course, if you are going to print any of your spreadsheets, you will need a printer. If the spreadsheet software requires access to the Internet, such as Google Sheets, then a router and Internet connection are required.

SOFTWARE NOTES

If you encounter a skill or feature that is not available in the software you are using, use an equivalent feature or adjust your document accordingly.

Unless otherwise stated, use the default font of the spreadsheets software being used. For example, the default font in Microsoft Excel is Calibri, while the default font in Google Sheets is Arial.

It is important to note that all of the spreadsheets lessons are written in a generic format and in most cases, the skills required can be achieved using any type of spreadsheet software.

Part 1 Review

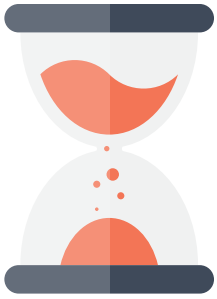
1. Visit **www.MyCompanionSite.com**.
2. Download and complete the **Spreadsheets Part 1 Review** worksheet.
3. Submit your completed worksheet to your instructor.

Generation What?

Creating Your First Workbook

Overview

Spreadsheet programs and applications are powerful tools that allow a user to enter data, perform calculations, analyze results, and display information in a variety of ways. Spreadsheet files are made up of worksheets that can be many pages. Data is organized in rows and columns, and cells can be referenced as part of mathematical calculations. Whether you are keeping a budget, creating an invoice, or formatting a financial report, spreadsheets make it easy to work with different kinds of data.



In this lesson, you will become familiar with your spreadsheet application interface while creating, saving, and printing your first spreadsheet file that showcases the various generation names, such as Millennials and Generation X.

New Skills

Creating, Naming, and Saving a Workbook • Identifying Rows, Columns, and Cell Addresses • Previewing and Printing a Worksheet • Closing a Worksheet

Instructions

1. If you have not done so already, create a folder on your storage drive (hard drive, network drive, web drive, etc.) where you will save all of your spreadsheets lessons.
2. Create a new spreadsheet.
3. Practice getting to know more about available options in the toolbars by clicking on various menus or drop-downs to see what you can find.
4. Use the default font and size of the spreadsheet software being used.
5. Type the data as shown in **Figure 1**. Notice how the cell address changes with each new entry.
6. Name and save the spreadsheet as **GENERATION**.
7. Carefully proofread your work for accuracy.
8. Be sure any changes have been saved.
9. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
10. Print a copy of the spreadsheet if required by your instructor.
11. Save and close the spreadsheet.

Figure 1

	A	B	C	D
1	GENERATION WHAT?			
2				
3	Name	Born Start	Born End	Age in 2020
4	Millennial	1981	1997	23–39
5	X	1965	1980	40–50
6	Boomers	1946	1964	56–74
7	Silent	1928	1945	75–92
8	Greatest	1910	1927	93–110
9				
10	STUDENT NAME			

NBA Hall of Fame

Working with Columns and Rows

Overview

Inevitably, there will be times when the data you enter into your spreadsheet will be too large to fit in the default column width or row height. Changing font sizes and including large amounts of data within a single cell requires column and row resizing. Resizing columns and rows improves the appearance of your worksheet and makes it easier for you to manipulate data. Large amounts of text can be contained within a cell if the row is high enough and text wrapping is activated.

In this lesson, you will create a spreadsheet that showcases a roster of NBA Hall of Fame players, the year they were enshrined, their date of birth, and a highlight from their biography.

New Skills

Resizing Rows and Columns • Centering Text Vertically in a Cell • Wrapping Text in a Cell • Setting the Print Area

Instructions

1. Create a new spreadsheet.
2. Use the default font and size of the spreadsheet software being used.
3. Format the width of column A to 20 and column D to 35.
4. Format the height of row 1 to 50.
5. Format column D to wrap the text within each cell.
6. Type the data as shown in **Figure 2**.
7. Save the spreadsheet as **NBAHALL**.
8. Resize columns B and C so that all data is displayed.
9. Center the text in cell A1 vertically.
10. Carefully proofread your work for accuracy.
11. Be sure any changes have been saved.
12. Set the print area of the spreadsheet to include cells A1–D10.
13. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
14. Print a copy of the spreadsheet if required by your instructor.

Figure 2

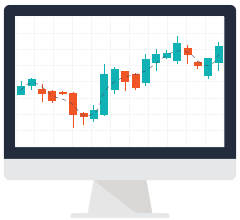
	A	B	C	D
1	NBA Hall of Fame			
2				
3	Player	Year Enshrined	Date of Birth	Biography Notes
4	Kareem Abdul-Jabbar	1995	4/16/47	From the time he stepped on the court as Lewis Alcindor at Power Memorial High School in his native New York City, to the years he owned college basketball at UCLA, to the time he retired as the NBA's all-time leader in nine statistical categories including the most points in NBA history, the 7-foot-2 superstar established himself as one of basketball's most talented and recognizable figures.
5	Nathaniel Archibald	1991	9/2/48	When Nate Archibald was selected in the second round of the 1970 NBA draft by the Cincinnati Royals, it was hoped the 6-foot-1 guard from the University of Texas–El Paso could handle the NBA game and stay in the league a few seasons.
6	Paul J. Arizin	1978	4/9/28	In high school he didn't try out for basketball until his senior year, and then he failed to make the team. Attending Villanova University without a scholarship, Arizin's hard work and perseverence paid off, earning him a place on the team as a sophomore.
7	Charles Barkley	2006	2/20/63	His larger-than-life personality made Barkley one of the game's greatest characters, while his hard-nosed style of play made him pound-for-pound and inch-for-inch one of the game's greatest rebounders.
8	Larry J. Bird	1998	12/7/56	Bird got his start in a small Indiana town, where he led Springs Valley High School to the state sectional championship. In 1979, Bird led Indiana State to the NCAA Championship Game.
9				
10	STUDENT NAME			

Market Analysis

Formatting Data

Overview

Changing the font in your spreadsheet can not only make printed work look better, but it can enhance the readability of your worksheet. Formatting text and numbers with font styles, colors, bold, underline, and italics can help the reader find key facts in your worksheet. Most importantly, formatting column and row headings can help to differentiate them from the actual data.



In this lesson, you will create and format a spreadsheet that contains market analysis information that will be included in a restaurant's updated business plan.

New Skills

Changing Font • Changing Font Size • Applying Bold, Italics, and Underline • Aligning Text in Columns Horizontally

Instructions

1. Create a new spreadsheet.
2. Use the default font and size of the spreadsheet software being used.
3. Type the data as shown in **Figure 7**.
4. Save the spreadsheet as **ANALYSIS**.
5. Change the font of the entire spreadsheet to Arial, 10 point.
6. Change the font size of cell A1 to 16 point and bold.
   HINT: Be sure you have typed the text using all caps.
7. Format cells A5–I5 to 12 point, bold, italic, and underlined.
8. Center align column D.
9. Right align columns E–I.
10. Format the width of columns D–I to 12.
11. Carefully proofread your work for accuracy.
12. Be sure any changes have been saved.
13. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
14. Change the page layout orientation to landscape and adjust the page scaling to fit to one page.
15. Print a copy of the spreadsheet if required by your instructor.

Figure 7

	A	B	C	D	E	F	G	H	I
1	MARKET ANALYSIS								
2									
3									
4									
5	Potential Customers			% Growth	Year 1	Year 2	Year 3	Year 4	Year 5
6	Local workers			2%	4853	4950	5049	5150	5253
7	Local students			2%	2844	2901	2959	3018	3078
8	Seasonal tourists			3%	80558	82975	85464	88028	90669
9	Weekend shoppers			4%	4308	4480	4660	4846	5040
10	Area residents			2%	15000	15300	15606	15918	16236
11									
12	STUDENT NAME								

AT40

Formatting Cells and Centering a Page

Overview

The data in a spreadsheet cell can be formatted to have various horizontal and vertical alignments. Characters can be centered, right aligned, or left aligned to help keep information organized and easy to read.

In this lesson, you will practice how to align data in columns in a spreadsheet about the 20 best AT40 songs of all time. You will then format your spreadsheet so that it is centered both horizontally and vertically.

New Skills

Formatting Cells as Text • Centering on a Page Horizontally and Vertically

Instructions

1. Create a new spreadsheet.
2. Use the default font and size of the spreadsheet software being used.
3. Type the data as shown in **Figure 8**.
4. Resize all columns so that all data is displayed.
5. Save the spreadsheet as **AT40**.
6. Center align column B.
7. Format column C as text, and right align column D.
8. Change the font of the entire spreadsheet to Comic Sans MS, 10 point.
9. Format the height of row 1 to 70.
10. Change the font size of cell A1 to 36 point, and change the vertical alignment to center.
11. Underline and bold the column headings in row 3.
12. Change the page layout orientation to landscape and adjust the page scaling to fit to one page.
13. Format the spreadsheet to be centered both horizontally and vertically, and set the sheet to print gridlines.
14. Carefully proofread your work for accuracy and be sure any changes have been saved.
15. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
16. Print a copy of the spreadsheet if required by your instructor.

Figure 8

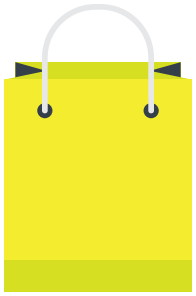
	A	B	C	D
1	Top 20 Songs of All Time			
2				
3	Artist Name	Song Name	Year Released	Album
4	Radiohead	Creep	1992	Pablo Honey
5	Ben E. King	Stand By Me	1960	Stand By Me
6	Ray Charles	Georgia On My Mind	1960	Hit the Road Jack
7	Aretha Franklin	Respect	1967	Chain of Fools
8	The Archies	Sugar, Sugar	1969	Sugar, Sugar
9	The Monkees	I'm a Believer	1966	The Best of the Monkees
10	The Police	Every Breath You Take	1983	Synchronicity
11	Barbra Streisand	The Way We Were	1973	Memories
12	Outkast	Hey Ya!	2003	Speakerboxxx/The Love Below
13	Woody Guthrie	This Land is Your Land	1944	This Land is Your Land: The Asch Recordings, Vol. 1
14	Nirvana	Smells Like Teen Spirit	1991	Nevermind
15	Amy Winehouse	Rehab	2007	Back to Black
16	Elvis Presley	Heartbreak Hotel	1956	Let's Rock and Roll!
17	Stevie Wonder	Superstition	1972	The Definitive Collection
18	Righteous Brothers	You've Lost That Lovin' Feeling	1964	You've Lost That Lovin' Feeling
19	Beyonce	Crazy in Love	2003	Dangerously In Love
20	Bill Haley and His Comets	Rock Around the Clock	1954	Rock Around the Clock
21	The Impressions	People Get Ready	1965	I Have a Dream
22	Mariah Carey	Fantasy	1995	Daydream
23	Prince and the Revolutions	When Doves Cry	1984	Purple Rain
24				
25	STUDENT NAME			

Forever 21

Formatting Numbers

Overview

The format of a cell can vary in many ways. Setting the format of a group of cells will make entering data easier and will change the way information is displayed and handled in a spreadsheet. Numbers are unique because they typically become part of formulas and calculations. When a number is entered with many decimal places, the cell takes on the value of that entire number. However, there may be times when it is not necessary to display all decimal places. Numbers will be displayed as rounded up if the place value to the right of the number of designated decimal places to be displayed is five or higher.



In this lesson, you will format numbers with various decimal places after you have entered them for a list of items sold at the popular clothing store, Forever 21.

New Skills

Formatting Cells as Numbers with Zero Decimals • Increasing/Decreasing Decimal Places

Instructions

1. Create a new spreadsheet.
2. Use the default font and size of the spreadsheet software being used.
3. Type the data as shown in **Figure 11**.
4. Resize all columns so that all data is displayed.
5. Save the spreadsheet as **FOREVER**.
6. Change the font size of the title in cell A1 to 21 point.
7. Merge and center cell A1 across columns A–G.
8. Bold the column headings in row 3.
9. Apply a thick bottom border to cells A3–G3.
10. Format column B as Text.
11. Center align column D.
12. Copy cells E4–E26 to cells G4–G26.
13. Format columns E and F as Number with 0 decimal places.

14. Increase the decimal places in cells F4–F26 to 2.
15. Decrease the decimal places in cells G4–G26 to 1.
16. Format the spreadsheet to be centered both horizontally and vertically.
17. Set the sheet to print gridlines.
18. Change the page layout orientation to landscape and adjust the page scaling to fit to one page.
19. Carefully proofread your work for accuracy.
20. Be sure any changes have been saved.
21. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
22. Print a copy of the spreadsheet if required by your instructor.

Figure 11

	A	B	C	D	E	F	G
1	Forever 21						
2							
3	Category	Item Number	Item Name	Style	Unit Cost	Suggested Selling Price	Gross Profit
4	Dresses	2000150074	A-line Mini Dress	Polyester	6.45	12.9	
5	Dresses	2000152247	Faux Suede Cami Romper	Polyester	14.95	29.9	
6	Dresses	2000187279	Criss Cross Front Dress	Rayon	12.45	24.9	
7	Men's Hoodies	2000154932	Zip Up Hoodie	Cotton	7.45	14.9	
8	Men's Hoodies	2000168633	Draw String Vest	Cotton	7.95	15.9	
9	Tops	2000150321	Dropped Dolphin Hem Shirt	Rayon	11.45	22.9	
10	Tops	2000182764	Contemporary Chiffon Twist Top	Chiffon	11.45	22.9	
11	Tops	2000182340	Tulip Back Tee	Cotton	8.95	17.9	
12	Tops	2000168820	Buttoned Striped Shirt	Cotton	9.95	19.9	
13	Tops	2000151093	Striped Panel Tee	Cotton	6.45	12.9	
14	Tops	2000162103	Longline Tee	Polyester	7.45	14.9	
15	Tees & Tanks	2000187095	Mineral Wash Tee	Cotton	7.45	14.9	
16	Tees & Tanks	2000167570	Knotted Hem Tee	Cotton	5.45	10.9	
17	Tees & Tanks	2000186989	Classic Striped Tee	Rayon	5.45	10.9	
18	Suits	2000101482	Classic 2 Button Blazer	Polyester	26.45	52.9	
19	Suits	2000181917	Satin Trim Blazer	Polyester	31.45	62.9	
20	Suits	2000163377	Creased Trousers	Polyester	14.95	29.9	
21	Sweaters	2000082489	Button Down Cardigan	Cotton	11.45	22.9	
22	Sweaters	2000165246	Vented Hem Sweater	Acrylic	13.95	27.9	
23	Sweaters	2000168488	Striped Sweater Top	Acrylic	11.45	22.9	
24	Sweaters	2000150158	Open Front Cardigan	Rayon	7.45	14.9	
25	Sweaters	2000157945	Mock Neck Sweater	Rayon	8.95	17.9	
26	Sweaters	2000174349	Ribbed Turtleneck	Wool	8.95	17.9	
27							
28	STUDENT NAME						

Accounts Payable—Nike Store

Formatting Currency and Percent

In this lesson, you will format numbers as currency and as percentages in a spreadsheet that lists the discount percent to be taken on invoices that are paid at a Nike Store.

Overview

Values displayed as dollar amounts have two recognizable features. The numbers are formatted with two decimal places and contain a dollar sign ($) in front of the first digit. If the third decimal place is a five or higher, the displayed value will appear rounded up. However, any calculations with the cell will be done with the entered value regardless of how many decimal places are displayed.

Numbers with a percent format contain a percent symbol (%) to the right of the last decimal place. Like other number formats, such as currency, percentage format can have any number of decimal places displayed and will show as rounded up if the digit to the right of the last displayed decimal place is five or higher.

New Skills

Formatting Cells as Currency • Formatting Cells as Percentages

Instructions

1. Create a new spreadsheet.
2. Use the default font and size of the spreadsheet software being used.
3. Type the data as shown in **Figure 12**.
4. Resize all columns so that all data is displayed.
5. Save the spreadsheet as **NIKE**.
6. Merge and center cell A1 across columns A–D.
7. Merge and center cell A2 across columns A–D.
8. Merge and center cell A3 across columns A–D.
9. Apply a bottom border to the merged cell A3.
10. Format column A as text.
11. Format cells C6–C20 as Currency displaying 2 decimal places.
12. Format cells D6–D20 as Percentage displaying 0 decimal places.

13. Center align column D.
14. Format the spreadsheet to be centered both horizontally and vertically.
15. Set the sheet to print gridlines.
16. Carefully proofread your work for accuracy.
17. Be sure any changes have been saved.
18. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
19. Print a copy of the spreadsheet if required by your instructor.

Figure 12

	A	B	C	D
1	Nike Store			
2	Accounts Payable			
3	Summary for March			
4				
5	Invoice #	Vendor Name	Amount	Discount Percent
6	1144	American Cotton	345	0.04
7	1244	JM Designs	1145	0.03
8	1141	Graphic Unlimited	766	0.04
9	1245	Package Plus	1254	0.05
10	2648	JM Designs	883	0.02
11	2452	Graphic Unlimited	533	0.05
12	2869	Cleaning Services	933	0.02
13	1053	Far East Graphics	978	0.06
14	1272	International Footwear, Ltd.	720	0.05
15	1127	Package Plus	1537	0.06
16	1196	International Footwear, Ltd.	1092	0.03
17	2676	Graphic Unlimited	1506	0.01
18	2331	International Footwear, Ltd.	665	0.06
19	2135	Energy Plus	409	0.04
20	2466	Energy Plus	951	0.06
21				
22	STUDENT NAME			

Dinner Menu

Working with Illustrations

Overview

There are many ways to enhance the appearance of a spreadsheet. Changing fonts, shading cells, and applying borders all add to the overall look of your spreadsheet. A simple spreadsheet can be improved with the addition of an image. Look for clear images from your software's clip art collection or from your own collection of saved images.

In this lesson, you will format a dinner menu for a week and enhance the look of the spreadsheet with the addition of a clip art image.

New Skills

Inserting a Clip Art Image

Instructions

1. Create a new spreadsheet.
2. Use the default font and size of the spreadsheet software being used.
3. Type the data as shown in **Figure 33**.
4. Resize all columns so that all data is displayed.
5. Save the spreadsheet as **DINNER**.
6. Below the data, insert a clip art image depicting a family having dinner. Be sure it does not cover any text. Resize the clip art so that it is in proportion with the spreadsheet data.
7. Change the font size of the title in cell A1 to 18 point, then merge and center cell A1 across columns A–F.
8. Right align column A.
9. Center align row 2 and columns B–F.
10. Bold row 2 and column A.
11. Format the spreadsheet to be centered both horizontally and vertically.
12. Change the page layout orientation to landscape and adjust the page scaling to fit to one page.
13. Carefully proofread your work for accuracy.
14. Be sure any changes have been saved.
15. Print preview and be sure that all cells containing data will be included in printing. Adjust the print area if necessary.
16. Print a copy of the spreadsheet if required by your instructor.

	A	B	C	D	E	F
1	Weekly Dinner Menu					
2		Monday	Tuesday	Wednesday	Thursday	Friday
3	Appetizer	Veggies and Dip	Nachos and Salsa	Garlic Bread	Spinach Dip and Pita Chips	Stuffed Mushrooms
4	Main Course	Poached Salmon	Chicken Enchiladas	Spaghetti and Meatballs	Pulled Pork	Pesto Pizza
5	Side Dish	Brown Rice	Green Salad	Caesar Salad	Corn Bread	Arugula Salad
6	Dessert	Raspberry Sorbet	Vanilla Custard	Chocolate Cake	Cinnamon Rolls	Ice Cream Sundaes
7	Beverage	Sparkling Water	Lemonade	Pomegranate Juice	Apple Cider	Root Beer
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26	STUDENT NAME					

Figure 33

Most Popular Features

Creating a Pie Chart

In this lesson, you will create a spreadsheet that lists the most popular features provided by Tutoring That Works! You will then use the spreadsheet data to create a pie chart. You will enhance the pie chart by changing colors and fonts.

Overview

A pie chart is a type of graph in which a circle is divided into sections that each represent a portion of the whole. The size of each slice is proportional to the quantity it represents. Pie charts can be used to display statistics, determine the popularity of products, and more. Pie charts are very widely used in business and mass media, and can be used to show percentages of a whole and represent percentages at a set point in time. However, they do not show changes over time.

The management of Tutoring That Works! is preparing for an annual planning session. They want to consider the promoted features of their program and their value to customers. To identify which of these features are most popular and how they are relative to one another, they want to see this information displayed visually in a pie chart.

New Skills

Inserting a Pie Chart • Formatting a Pie Chart

Instructions

1. Create a new spreadsheet.
2. Change the font of the entire spreadsheet to Arial, 10 point.
3. Type the data as shown in **Figure 38**.
4. Save the spreadsheet as **FEATURES**.
5. Change the font size of cell A1 to 16 point.
6. Format cells A1–B3 to bold.
7. Format the width of column A to 26.
8. Format the width of column B to 20.
9. Create a pie chart using the data in cells A4–B9.

10. Format the style of the chart as follows:
    a. Enter the chart title as "Most Popular Tutoring That Works! Features" above the chart.
    b. Display the legend to the right of the pie chart.
    c. Show no data labels.
    d. Move the chart to a new sheet and name the sheet **Pie Chart**.
11. Format the Chart Area with a background fill color of light orange.
12. Format the colors of each piece of the pie chart as follows:
    a. Choose your location: light blue
    b. Private or small group: orange
    c. Flexible scheduling: blue
    d. Credentialed tutors: green
    e. Catch up quickly: red
    f. Best material retention: yellow
13. Format the chart's legend background to olive green and change the font size to 16.
14. Format the chart's title to blue, and change the font size to 24 point and bold.
15. Adjust the page scaling to fit to one page for both the spreadsheet and pie chart.
16. Carefully proofread your work for accuracy.
17. Be sure any changes have been saved.
18. Print preview and be sure that all cells containing data will be included in the printing. Adjust the print area if necessary.
19. Print a copy of the workbook and pie chart if required by your instructor.

Figure 38

	A	B
1	Tutoring That Works!	
2		
3	SERVICES	TOP SIX
4	Choose your location	32
5	Private or small group	12
6	Flexible scheduling	8
7	Credentialed tutors	18
8	Catch up quickly	25
9	Best material retention	5
10		
11	STUDENT NAME	