



## SAM Projects

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## Review Assignments

There are no Data Files needed for the Review Assignments.

Sally wants you to create a workbook to record the recent book purchases made by Sparrow & Pond. The workbook should list the recent acquisitions from private sellers, libraries, and other vendors; include a description of each book; and calculate the total number of books acquired and the total amount spent by Sparrow & Pond. Complete the following:

1. Create a new, blank workbook, and then save the workbook as **Book List** in the location specified by your instructor.
2. Rename the Sheet1 worksheet as **Documentation**, and then enter the data shown in Figure 1-42 in the specified cells.

Figure 1-42 Documentation sheet data

Cell	Data
A1	Sparrow & Pond
A3	Author
A4	Date
A5	Purpose
B3	<i>your name</i>
B4	<i>current date</i>
B5	To record book acquisitions by Sparrow & Pond

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3. Set the font size of the title text in cell A1 to 26 points.
4. Add a new worksheet after the Documentation sheet, and then rename the sheet as **Books**.
5. In cell A1, enter the text **Book Acquisitions**. Set the font size of this text to 26 points.
6. In cell A2, enter the text **DATE** as the label. In cell B2, enter the date **4/3/2016**.
7. In the range A4:C9, enter the data shown in Figure 1-43.

Figure 1-43 Book list

ISBN	STATUS	BINDING	TITLE	AUTHOR	CONDITION	PRICE
0-670-02103-2	New	Softcover	Rocket Men: The Epic Story of the First Men on the Moon	Nelson, Craig	Excellent	\$12.95
0-195-09076-4	Used	Hardcover	Buildings of Colorado	Noel, Thomas J.	Good	\$22.50
0-375-70365-9	New	Softcover	American Visions: The Epic History of Art in America	Hughes, Robert	Excellent	\$22.50
1-564-77848-7	New	Softcover	Simple Comforts: 12 Cozy Lap Quilts	Diehl, Kim	Very Good	\$9.25
1-851-70006-4	Used	Hardcover	Beautiful Stories About Children	Dickens, Charles	Good	\$33.50

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8. Insert cells into the range A4:A9, shifting the other cells to the right.
9. Enter the label **BOOK ID** in cell A4, type **02103-New** in cell A5, and then type **09076-Used** in cell A6.
10. Use Flash Fill to fill in the remaining book IDs.
11. Set the width of columns A through D to 15 characters each. Set the width of column E to 30 characters. Set the width of column F to 20 characters. Set the width of column G to 15 characters.
12. Set the book titles in the range E4:E9 to wrap to a new line.
13. Autofit the heights of rows 4 through 9.
14. Move the book list in the range A4:H9 to the range A8:H13.
15. In cell G15, enter the text **TOTAL**. In cell H15, enter a function to add the prices in the range H9:H13.
16. In cell A4, enter the text **TOTAL BOOKS**. In cell B4, enter a function to count the number of numeric values in the range H9:H13.
17. In cell A5, enter the text **TOTAL PRICE**. In cell B5, display the value from cell H15.
18. In cell A6, enter the text **AVERAGE PRICE**. In cell B6, enter a formula to calculate the total price paid for the books (listed in cell B5) divided by the number of books purchased (listed in cell B4).
19. Add borders around each cell in the nonadjacent range A4:B6;A8:H13;G15:H15.
20. For the Books worksheet, change the page orientation to landscape and scale the worksheet to print on a single page for both the width and the height. If you are instructed to print, print the entire workbook.
21. Display the formulas in the Books worksheet, and set the gridlines and row/column headings to print. If you are instructed to print, print the entire worksheet.
22. Save and close the workbook.

## Case Problem 1

Data File needed for this Case Problem: **Pacific.xlsx**

**American Wheel Tours** Kevin Bennett is a tours manager at American Wheel Tours, a bicycle touring company located in Philadelphia, Pennsylvania, that specializes in one- and two-week supported tours in destinations across the United States. Kevin wants you to create a workbook that details the itinerary of the company's Pacific Coast tour. The workbook will list the tour itinerary shown in Figure 1-44 and calculate the total number of riding days, total mileage, and average mileage per ride.

Figure 1-44 Pacific Tour itinerary

DATE	START	FINISH	CAMPSITE	MILES	DESCRIPTION
10-Oct-16	Eugene	Eugene	Richardson Park		Orientation day. Meet at Richardson Park, located at the Fern Ridge Reservoir.
11-Oct-16	Eugene	Florence	Honeyman State Park	66	Cycle over Low Pass to Honeyman State Park.
12-Oct-16	Florence	Charleston	Sunset Bay State Park	56	Cycle through Oregon Dunes National Recreation Area to Sunset Bay State Park.
13-Oct-16	Charleston	Port Orford	Humbug Mountain State Park	60	Cycle around Bullards Beach State Park and camp at Humbug Mountain State Park.
14-Oct-16	Port Orford	Brookings	Harris Beach State Park	52	Cycle past the mouth of the Rogue River to Harris Beach State Park.
15-Oct-16	Brookings	Crescent City	Jedediah State Park	48	Pass into California and camp at Jedediah State Park.
16-Oct-16	Crescent City	Eureka	Eureka Fairgrounds	72	A long day through Del Norte Coast Redwoods State Park to Eureka.

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Complete the following:

1. Open the **Pacific** workbook located in the Excel1 ► Case1 folder included with your Data Files, and then save the workbook as **Pacific Coast** in the location specified by your instructor.
2. In the Documentation worksheet, enter your name in cell B3 and the date in cell B4.
3. Add a new sheet to the end of the workbook and rename it as **Itinerary**.
4. In cell A1, enter the text **Pacific Coast Tour** and set the font size to 28 points.
5. In the range A3:A8, enter the following labels: **Start Date**, **End Date**, **Total Days**, **Riding Days**, **Total Miles**, and **Miles per Day**.
6. Enter the date **October 10, 2016** in cell B3, and then enter the date **October 16, 2016** in cell B4.
7. In the range D3:D8, enter the labels **Type**, **Surface**, **Difficulty**, **Tour Leader**, **Cost**, and **Deposit**.
8. In the range E3:E8, enter **Van Supported**, **Paved**, **Intermediate**, **Kevin Bennett**, **\$1,250**, and **\$350**.
9. In the range A11:F18, enter the data shown in Figure 1-44, including the column labels. Leave the mileage value for October 10th blank.
10. In cell B5, enter a formula to calculate the total number of days in the tour by subtracting the starting date (cell B3) from the ending date (cell B4) and adding 1.

11. In cell B6, enter a function to count the total number of riding days based on the numbers in the range E12:E18.
12. In cell B7, enter a function to add the total number of miles in the range E12:E18.
13. In cell B8, enter a formula to calculate the average miles per day by dividing the total miles by the number of riding days.
14. Insert cells in the range A11:A18, shifting the cells to the right. In cell A11, enter **DAY**. In the range A12:A18, enter the numbers 1 through 7 to number each day of the tour.
15. Set the column widths so that column A is 12 characters, columns B through E are 14 characters each, column F is 6 characters, and column G is 50 characters.
16. Wrap text in the range A11:G18 as needed so that any hidden entries are displayed on multiple lines within the cell.
17. Autofit the height of rows 11 through 18.
18. Add borders around the ranges A3:B8, D3:E8, and A11:G18.
19. Format the Itinerary worksheet so that it prints on a single page in landscape orientation. If you are instructed to print, print the entire workbook.
20. Display the formulas in the Itinerary worksheet, and set the gridlines and column/row headings to print. If you are instructed to print, print the worksheet.
21. Return the Itinerary worksheet to Normal view, hide the formulas, set the gridlines and column/row headings so that they won't print, and then save the workbook.
22. Save the workbook as **Pacific Coast Revised** in the location specified by your instructor.
23. Determine what the total mileage and average mileage per day of the tour would be if Kevin adds a 10-mile warm-up ride on October 10th but decreases the length of the October 15th ride to 41 miles. Save the workbook.

## Case Problem 2

Data File needed for this Case Problem: **Tropical.xlsx**

**Tropical Foods** Tropical Foods is a health food grocery store located in Keizer, Oregon. Monica Li is working on the store's annual financial report. One part of the financial report will be the company's balance sheet for the previous two years. Monica already entered the labels for the balance sheet. You will enter the numeric data and formulas to perform the financial calculations. Complete the following:

1. Open the **Tropical** workbook located in the Excel1 ► Case2 folder included with your Data Files, and then save the workbook as **Tropical Foods Balance Sheet** in the location specified by your instructor.
2. In cells B3 and B4 of the Documentation sheet, enter your name and the date. In cell A1, increase the font size of the title to 28 points.
3. Go to the Balance Sheet worksheet. Increase the font size of the title in cell A1 to 28 points, and then increase the font size of the subtitle in cell A2 to 20 points.
4. In the corresponding cells of columns C and D, enter the numbers shown in Figure 1-45 for the company's assets and liabilities.

Figure 1-45 Tropical Foods assets and liabilities

		2015	2014
Assets	Cash	\$645,785	\$627,858
	Accounts Receivable	431,982	405,811
	Inventories	417,615	395,648
	Prepaid Expenses	2,152	4,151
	Other Assets	31,252	26,298
	Fixed Assets @ Cost	1,800,000	1,750,000
	Accumulated Depreciation	82,164	\$77,939
Liabilities	Accounts Payable	\$241,191	\$193,644
	Accrued Expenses	31,115	32,151
	Current Portion of Debt	120,000	100,000
	Income Taxes Payable	144,135	126,524
	Long-Term Debt	815,000	850,000
	Capital Stock	1,560,000	1,525,000
	Retain Earnings	335,181	304,508

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- Set the width of column A to 12 characters, column B to 28 characters, columns C and D to 14 characters each, column E to 2 characters, and column F to 10 characters.
- In cells C8 and D8, enter formulas to calculate the current assets value for 2014 and 2015, which is equal to the sum of the cash, accounts receivable, inventories, and prepaid expenses values.
- In cells C14 and D14, enter formulas to calculate the net fixed assets value for 2014 and 2015, which is equal to the difference between the fixed assets value and the accumulated depreciation value.
- In cells C16 and D16, enter formulas to calculate the total assets value for 2014 and 2015, which is equal to the sum of the current assets, other assets, and net fixed assets value.
- In cells C23 and D23, enter formulas to calculate the sum of the accounts payable, accrued expenses, current portion of debt, and income taxes payable values for 2014 and 2015.
- In cells C29 and D29, enter formulas to calculate the shareholders' equity value for 2014 and 2015, which is equal to the sum of the capital stock and retained earnings.
- In cells C31 and D31, enter formulas to calculate the total liabilities & equity value for 2014 and 2015, which is equal to the sum of the current liabilities, long-term debt, and shareholders' equity.
- In a balance sheet, the total assets should equal the total liabilities & equity. Compare the values in cells C16 and C31, and then compare the values in cells D16 and D31 to confirm that this is the case for the Tropical Foods balance sheet in 2014 and 2015. If the account doesn't balance, check your worksheet for errors in either values or formulas.
- In cell F4, enter a formula to calculate the percentage change in cash from 2014 to 2015, which is equal to  $(C4-D4)/D4$ .

14. Copy the formula in cell F4 and paste it in the nonadjacent range F5:F8;F10;F12:F14;F16;F19:F23;F25;F27:F29;F31 to show the percentage change in all values of the balance sheet.
15. Add borders around the cells in columns B, C, D, and F of the balance sheet, excluding the cells in rows 9, 11, 15, 17, 18, 24, 26, and 30.
16. Set the page layout of the Balance Sheet worksheet to portrait orientation and scaled to print on a single page. If you are instructed to print, print the entire workbook.
17. Display the formulas in the Balance Sheet worksheet, and then set the gridlines and row/column headings to print. If you are instructed to print, print the worksheet.
18. Display the Balance Sheet worksheet in Normal view, hide the formulas, set the gridlines and column/row headings so that they won't print, and then save the workbook.

### Case Problem 3

**Data File needed for this Case Problem: Physics.xlsx**

CHALLENGE

**Gladstone Country Day School** Beatrix Melendez teaches Introduction to Physics at Gladstone Country Day School in Gladstone, Missouri. She wants to record students' quiz scores, and then calculate each student's total and average scores. She also wants to calculate the class average, high score, and low score for each quiz in her records. Beatrix has entered scores from 10 quizzes for 20 students in a worksheet. You will summarize these grades by student and by quiz using the functions listed in Figure 1-46.

Figure 1-46 Excel summary functions

Function	Description
=AVERAGE (range)	Calculates the average of the values from the specified range
=MEDIAN (range)	Calculates the median or midpoint of the values from the specified range
=MIN (range)	Calculates the minimum of the values from the specified range
=MAX (range)	Calculates the maximum of the values from the specified range

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Complete the following:

1. Open the **Physics** workbook located in the Excel1 ► Case3 folder included with your Data Files, and then save the workbook as **Physics Grading Sheet** in the location specified by your instructor.
2. In the Documentation sheet, enter your name in cell B3 and the date in cell B4. Increase the font size of the title in cell A1 to 28 points.
3. Go to the Grades worksheet. Increase the font size of cell A1 to 28 points, and then increase the font size of cell A2 to 22 points.
- ✚ **Explore** 4. In cell M5, enter a formula to calculate the median or midpoint of the quiz scores for Debra Alt. In cell N5, enter a formula to calculate the average of Debra Alt's quiz scores.
5. Copy the formulas in the range M5:N5 to the range M6:N24 to summarize the scores for the remaining students.
- ✚ **Explore** 6. In cell B26, enter a formula to calculate the minimum class score from the first quiz. In cell B27, enter a formula to calculate the median class score.
- ✚ **Explore** 7. In cell B28, use the MAX function to calculate the high score from the first quiz.
8. In cell B30, enter a formula to calculate the average score from the first quiz.
9. Copy the formulas in the range B26:B30 to the range C26:K30 to calculate the summary statistics for the rest of the quizzes.