Unit 3: Sheets

Lesson 3.1 — Master Field Trip List

Creating Your First Spreadsheet

Resize a Column • Insert a Column • Use AutoFill • Format Data • Center Align Data • Use Undo/Redo • Share a Spreadsheet • Close a Spreadsheet

Lesson 3.2 — Apple Store Product Sales

Using Spreadsheets to Calculate Data

Find and Replace Text • Format As Currency • Use Formulas (Multiply, Add, SUM, Divide) • View Formulas • Print Preview a Spreadsheet • Print a Spreadsheet

Lesson 3.3 — Senior Project Workshop

Using Formulas

Use Formulas (AVERAGE, MAXIMUM, MINIMUM) • Increase/Decrease Decimal Places • Cut and Paste Text • Add Borders • Change Page Orientation

Lesson 3.4 — Top 10 Schools

Working with Hyperlinks

Insert a Link • Format Column Width • Use Text Wrap • Use Paint Format

Lesson 3.5 — Coffee Shop Sales

Creating Pie and Column Charts

Merge Cells • Use Fill Color • Rename a Sheet • Insert a New Sheet • Copy Data • Sort Data • Create Pie & Column Charts

Lesson 3.6 — Varsity Sports Attendance

Creating a Line Chart

Format Number • Create a Line Chart • Insert an Image • Resize an Image

Lesson 3.7 — Energy Drink Comparison

Collaborating with Sheets

Collaborate • Insert a Note • Insert a Row • Format Row Height • Align Text Vertically

Unit 3 Assessment

Performance Assessment is located on the Instructor's Resource CD.

Master Field Trip List

Creating Your First Spreadsheet

Overview

The Middleton High School Student Council is planning for the upcoming school year. To increase student involvement, they decide to offer monthly field trips to a variety of destinations in the area. Your job as the student council vice-president is to organize the field trip information in a spreadsheet so the trips can be approved by the school principal.

In this lesson, you will create a spreadsheet to include a list of the field trips for the upcoming school year.

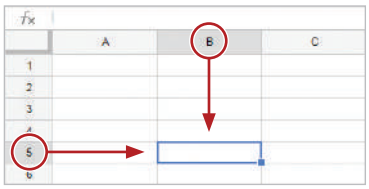
New Skills

Resize a Column • Insert a Column • Use AutoFill • Format Data • Center Align Data • Use Undo/Redo • Share a Spreadsheet • Close a Spreadsheet

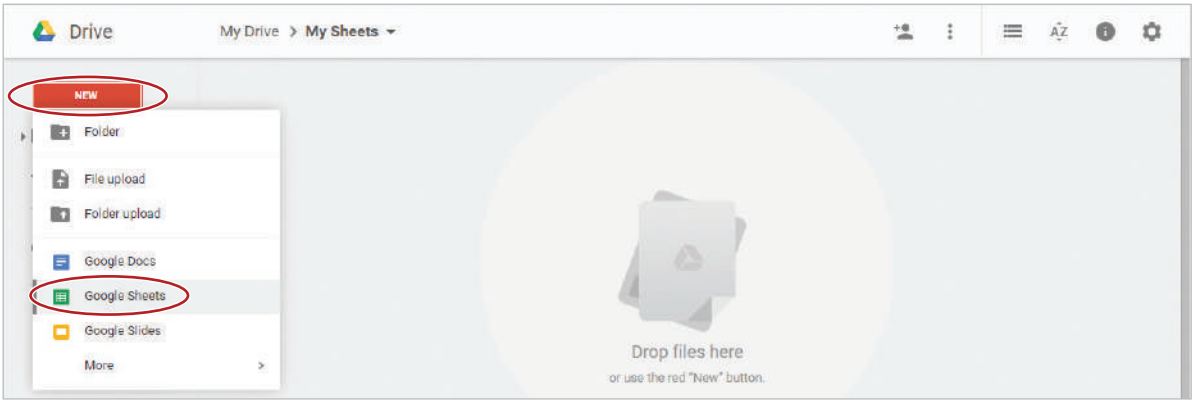
Instructions

1. Sign into Google Drive.

2. A spreadsheet is made up of cells, organized by columns and rows. Columns are identified by letters, and rows are identified by numbers. The intersection of a row and a column is the cell's address. For example, this is cell B5.



3. To create a new spreadsheet, open your My Sheets folder, click the **NEW** button and select **Google Sheets**.



4. Rename your spreadsheet Lesson 3.1.

5. In this unit, you will be required to enter data into a spreadsheet. There are several ways to move from cell to cell. Practice using the Enter key, the Tab key, and the arrow keys as you navigate around your spreadsheet.

6. With cell A1 selected, type the text [Master Field Trip List] and hit Enter.

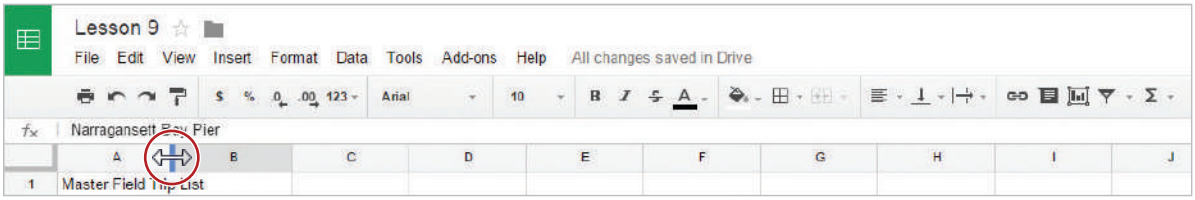
   Note: Throughout this book, you will be required to type text that is shown in brackets. Do not type the brackets.

7. Continue to enter the data exactly as shown in 3.1 Figure A.

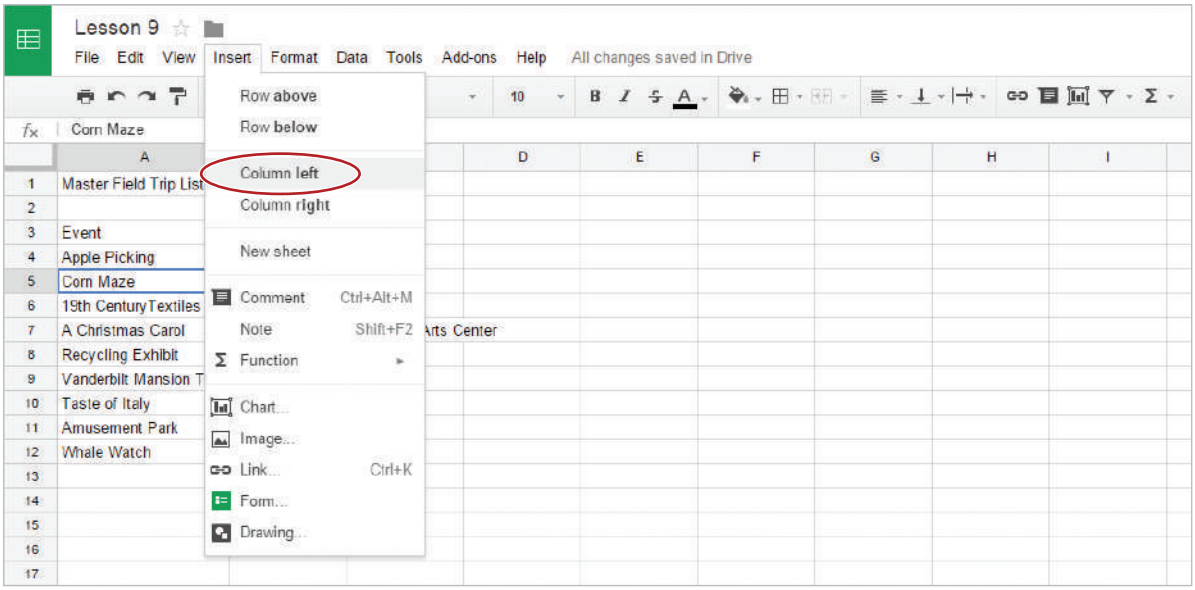
   Note: When finished, some of the text in column A will not be visible since the column is not wide enough.

8. **Resize a Column.** To automatically make a column as wide as the longest line of data it contains, do the following:

   a. Position your cursor between column headings A and B. When your cursor becomes a double-sided arrow and the dividing line turns blue, double-click.



9. **Insert a Column.** To insert a column to the left of column A, click any cell in column A, then from the **Insert** menu, select **Column left**.



Note: The new column you inserted becomes column A.

10. In Column A, enter the data **exactly** as shown below.

	A	B	C	D
1		Master Field Trip List		
2				
3	Month	Event	Location	
4	September	Apple Picking	Anderson's Apple Orchard	
5	October	Corn Maze	Roy Carpenter's Farm	
6		19th CenturyTextiles	Old Sturbridge Village	

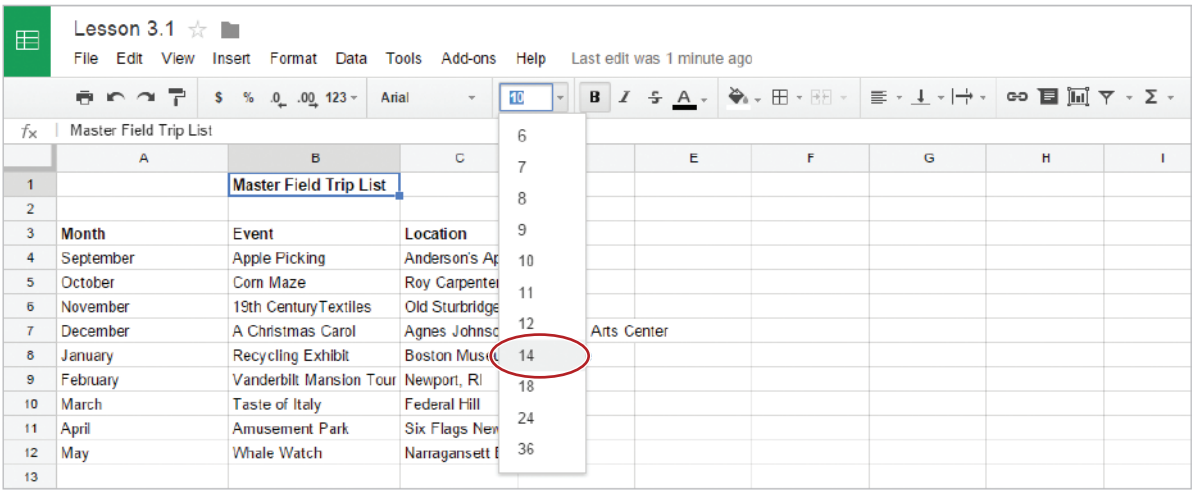
11. Use Auto Fill. To continue a series or pattern from a range of cells into neighboring cells in any direction, select cells A4 and A5, then click and drag the **Auto Fill** handle down to select cells A6-A12.

	A	B	C	D
1		Master Field Trip List		
2				
3	Month	Event	Location	
4	September	Apple Picking	Anderson's Apple Orchard	
5	October	Corn Maze	Roy Carpenter's Farm	
6		19th CenturyTextiles	Old Sturbridge Village	

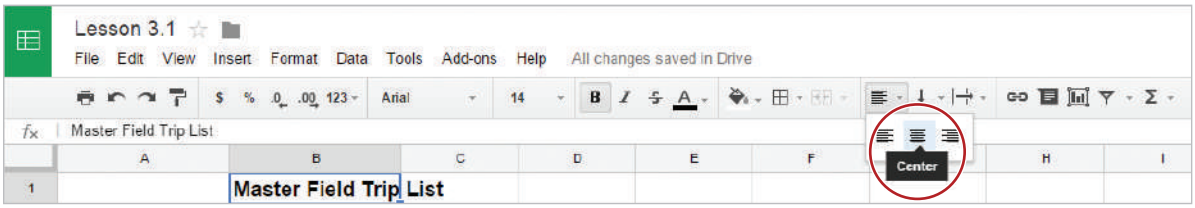
12. Format Data. Make the following formatting changes:

a. **Bold** cells A3-C3.

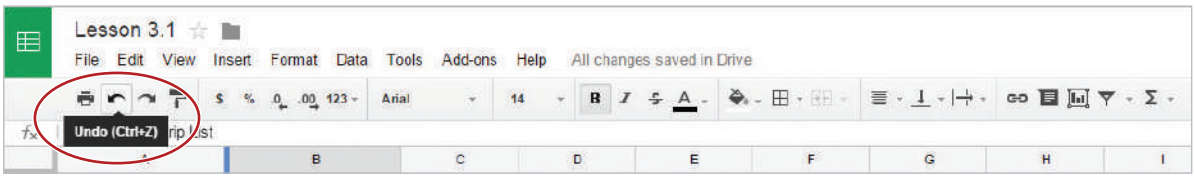
b. Bold and increase the **font size** of cell B1 to **14**.



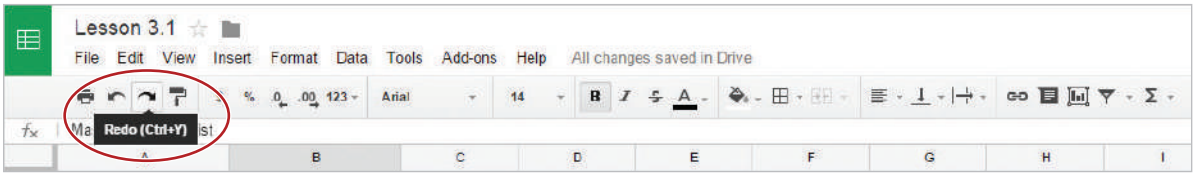
13. **Center Align Data.** To center the data within a cell, select cell B1, then from the **Horizontal Align** drop-down menu, select **Center**.



14. **Use Undo.** To undo the last action performed, click the **Undo** icon.



15. **Use Redo.** To redo the last action undone, click the **Redo** icon.



Hint: Your data should once again be center aligned.

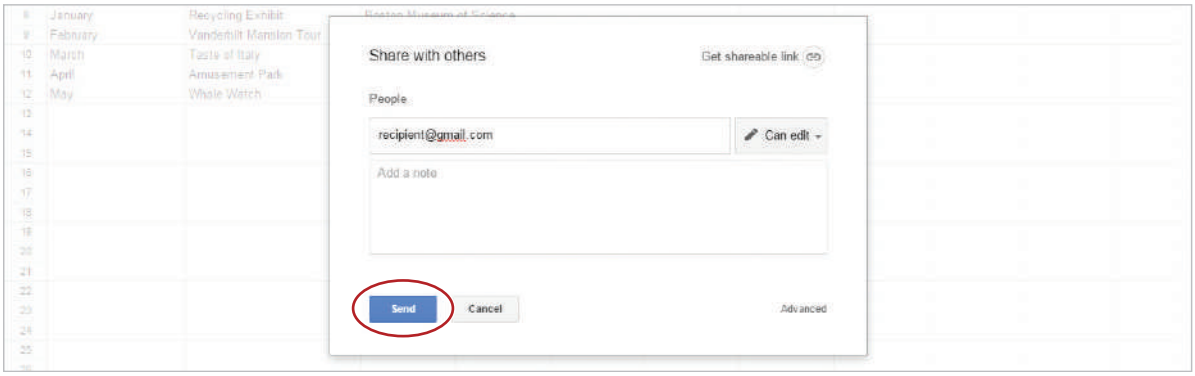
16. Resize Column B so that all data in cell B1 fits within the cell.

Hint: Double-click between column headings B and C.

17. Proofread your spreadsheet for accuracy and format. It should look similar to 3.1 Figure B.

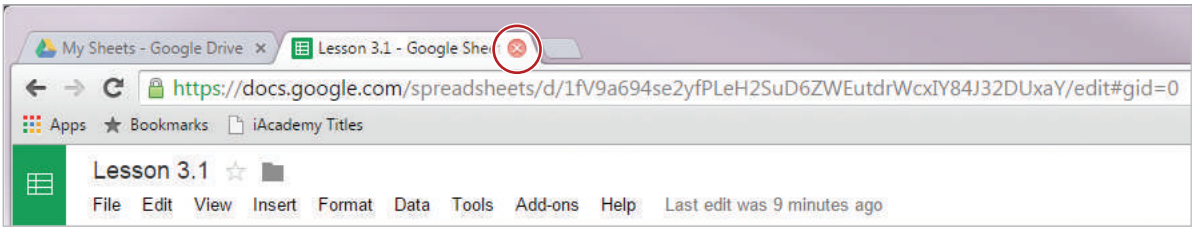
18. **Share a Spreadsheet**. To share this spreadsheet, click the **Share** button.

19. Type the email address of the person you would like to share your spreadsheet with, such as your instructor. Assign them permission to edit and include a note informing the recipient that you have shared a spreadsheet with them, then click **Send**.



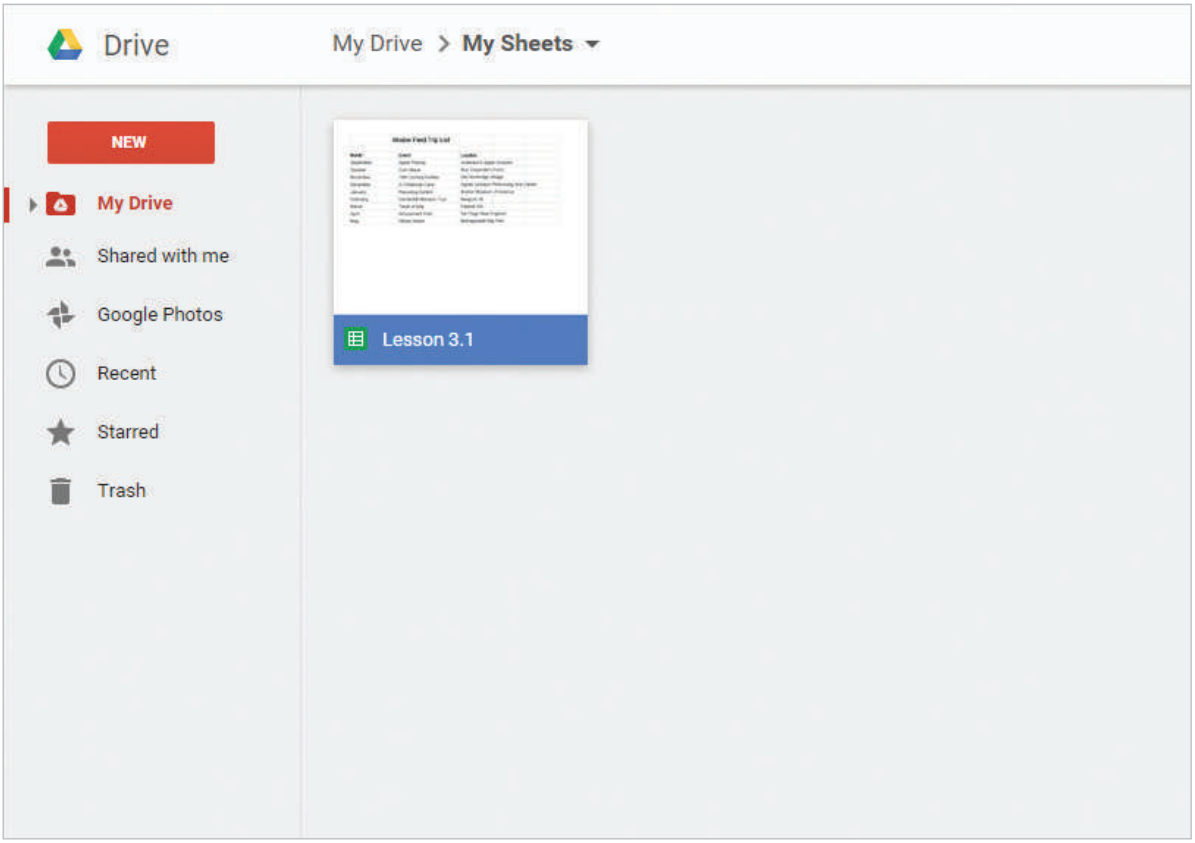
20. Notice that the Share button has changed to indicate the spreadsheet has been shared.

21. Close a Spreadsheet. To close your spreadsheet, click the **X** on the Lesson 3.1 tab.



Note: Depending on the browser being used, the spreadsheet tabs may differ in appearance.

22. You should now see the Lesson 3.1 spreadsheet in your My Sheets folder.



3.1 Figure A

	A	B	C	D
1	Master Field Trip List			
2				
3	Event	Location		
4	Apple Picking	Anderson's Apple Orchard		
5	Corn Maze	Roy Carpenter's Farm		
6	19th CenturyTextiles	Old Sturbridge Village		
7	A Christmas Carol	Agnes Johnson Performing Arts Center		
8	Recycling Exhibit	Boston Museum of Science		
9	Vanderbilt Mansion Tour	Newport, RI		
10	Taste of Italy	Federal Hill		
11	Amusement Park	Six Flags New England		
12	Whale Watch	Narragansett Bay Pier		
13				
14				
15				
16				
17				

3.1 Figure B

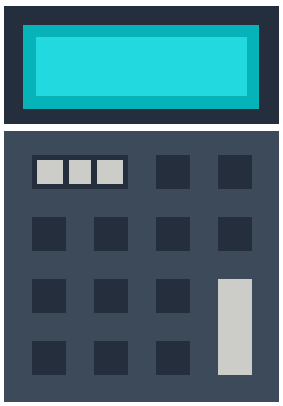
	Master Field Trip List		
Month	**Event**	**Location**	
September	Apple Picking	Anderson's Apple Orchard	
October	Corn Maze	Roy Carpenter's Farm	
November	19th CenturyTextiles	Old Sturbridge Village	
December	A Christmas Carol	Agnes Johnson Performing Arts Center	
January	Recycling Exhibit	Boston Museum of Science	
February	Vanderbilt Mansion Tour	Newport, RI	
March	Taste of Italy	Federal Hill	
April	Amusement Park	Six Flags New England	
May	Whale Watch	Narragansett Bay Pier	

Apple Store Product Sales

Using Spreadsheets to Calculate Data

Overview

As an intern at the Apple Store, the store manager has asked you to keep track of weekly sales. You decide that the best way to present this information is to prepare a spreadsheet which will calculate the sales and tax totals she is looking for.



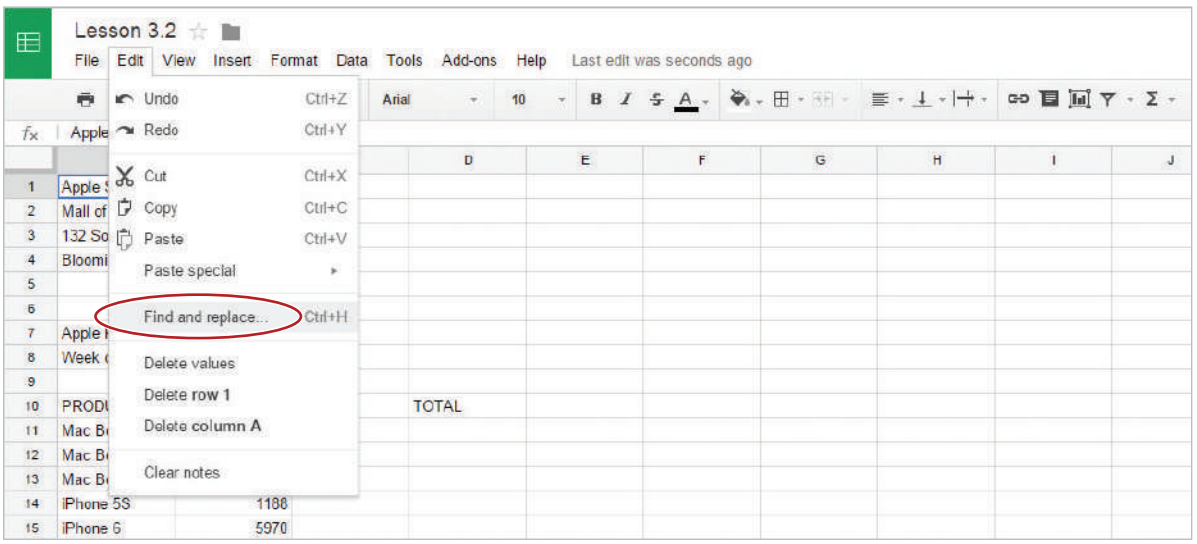
In this lesson, you will create a spreadsheet and use formulas to calculate Apple Store product sales.

New Skills

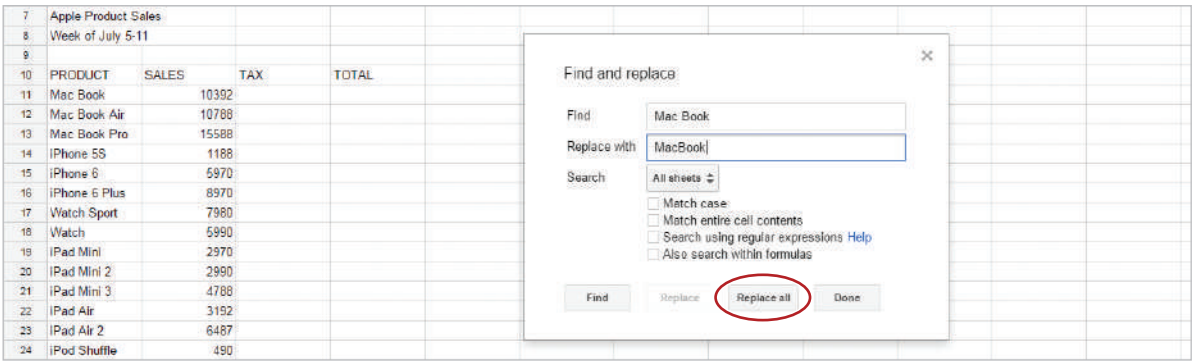
Find and Replace Text • Format As Currency • Use Formulas (Multiply, Add, SUM, Divide) • View Formulas • Print Preview a Spreadsheet • Print a Spreadsheet

Instructions

1. In your My Sheets folder, create a new spreadsheet and name it Lesson 3.2.
2. Enter the data as shown in 3.2 Figure A.
3. **Find and Replace Text.** To find text within your spreadsheet and replace it with different text, from the **Edit** menu, select **Find and replace**.

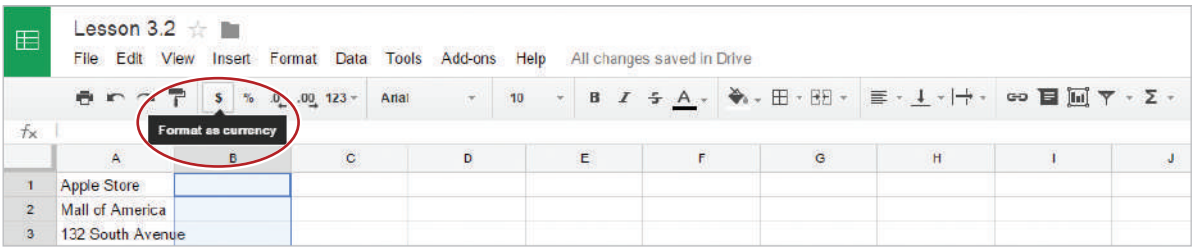


4. In the **Find and replace** dialog box, type [Mac Book] in the **Find** field, type [MacBook] in the **Replace with** field, click **Replace all**, then click the Done button.



5. **Format as Currency.** To format numbers as dollars with the dollar symbol, commas, and decimal places, select column B and click the **Currency** icon.

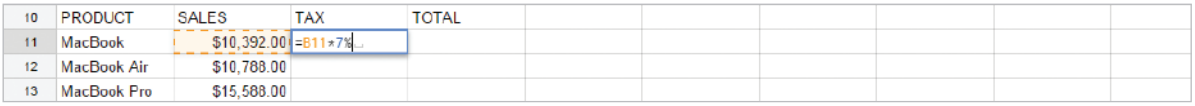
Hint: To select a column, click the column heading cell containing the column letter. To select multiple adjacent columns, hold down the Shift key while clicking the column heading cells. Use Ctrl when selecting non-adjacent columns.



6. **Use Formulas.** For Sheets to recognize that a formula is being used to calculate data, all formulas must begin with an equal sign.

7. **Use Multiplication Formula.** To calculate the sales tax using multiplication, in cell C11, type **=B11*7%**.

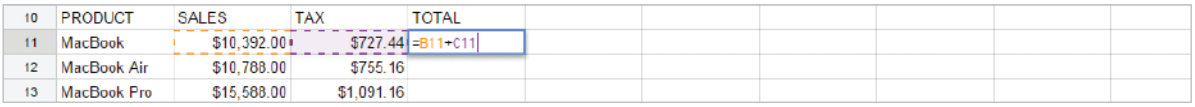
Hint: This formula will multiply MacBook sales by the sales tax percentage.



a. Hit the Enter key for the spreadsheet to calculate the formula.

b. To apply the formula in cell C11 to other cells, select cell C11 and drag the Auto Fill handle down to cells C12-C27. Alternatively, double-click the Auto Fill handle in cell C11.

8. **Use Addition Formula.** To add the sales and the sales tax, in cell D11, type **=B11+C11**.

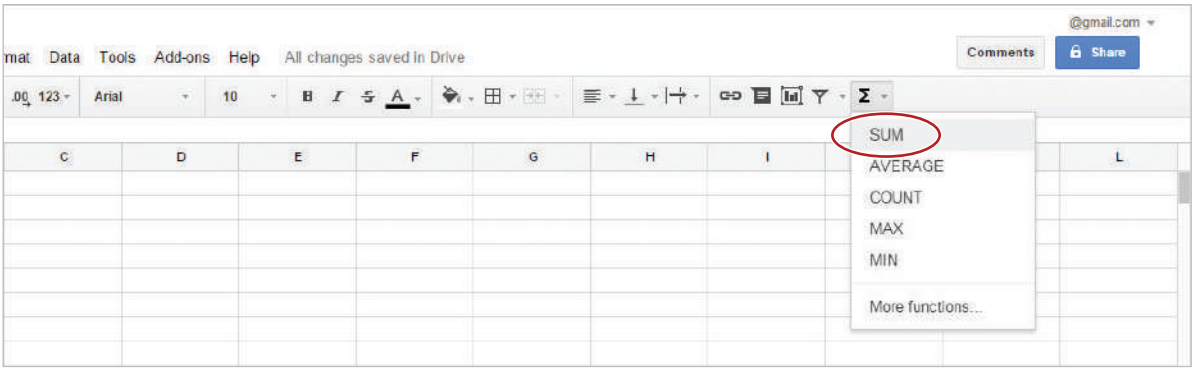


a. Hit the Enter key for the spreadsheet to calculate the formula.

b. To apply the formula in cell D11 to other cells, select cell D11 and drag the Auto Fill handle down to cells D12-D27. Alternatively, double-click the Auto Fill handle in cell D11.

9. Find the SUM. To calculate the sales totals for the week, do the following:

a. In cell B29, from the **Functions** drop-down menu, select **SUM**.



b. When prompted to input the range of cells, select cells B11-B27.

Note: Cells B11-B27 will turn orange, and the formula ***=SUM(B11:B27)*** *will appear in cell B29.*

	PRODUCT	SALES	TAX	TOTAL
11	MacBook	$10,392.00	$727.44	$11,119.44
12	MacBook Air	$10,788.00	$755.16	$11,543.16
13	MacBook Pro	$15,588.00	$1,091.16	$16,679.16
14	iPhone 5S	$1,188.00	$83.16	$1,271.16
15	iPhone 6	$5,970.00	$417.90	$6,387.90
16	iPhone 6 Plus	$8,970.00	$627.90	$9,597.90
17	Watch Sport	$7,980.00	$558.60	$8,538.60
18	Watch	$5,990.00	$419.30	$6,409.30
19	iPad Mini	$2,970.00	$207.90	$3,177.90
20	iPad Mini 2	$2,990.00	$209.30	$3,199.30
21	iPad Mini 3	$4,788.00	$335.16	$5,123.16
22	iPad Air	$3,192.00	$223.44	$3,415.44
23	iPad Air 2	$6,487.00	$454.09	$6,941.09
24	iPod Shuffle	$490.00	$34.30	$524.30
25	iPod Nano	$1,788.00	$125.16	$1,913.16
26	iPod Touch	$4,975.00	$348.25	$5,323.25
27	Apple TV	$6,555.00	$458.85	$7,013.85
28				
29	Totals for the We	=SUM(B11:B27)		
30	Average Daily Sales			
31				

c. Hit the Enter key for the spreadsheet to calculate the formula.

10. Use Division Formula. To calculate the average sales per day, in cell B30 type, **=B29/7**.

Hint: This formula will divide total sales for the week by the number of days in a week.

28		
29	Totals for the We	$101,101.00
30	Average Daily Sa	=B29/7
31		
32		

11. Hit the Enter key for the spreadsheet to calculate the formula.

12. Resize column A so that all data is visible.

13. Center align cells A1-A4.

14. Change the cells A1-A4 back to left align.

15. Bold cells A10-D10.

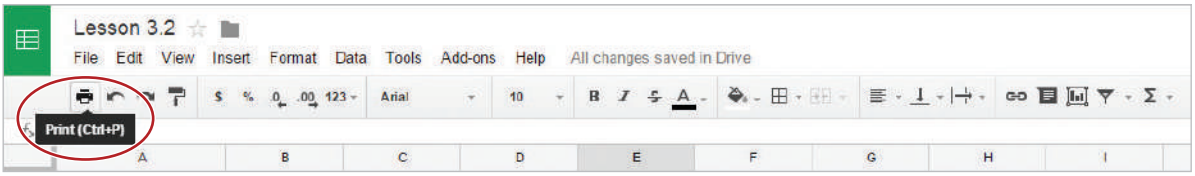
16. Right align cells B10-D10.

17. View Formulas. To display all of the formulas rather than values, from the **View** menu, select **All formulas**. Alternatively, press **Ctrl + `**.

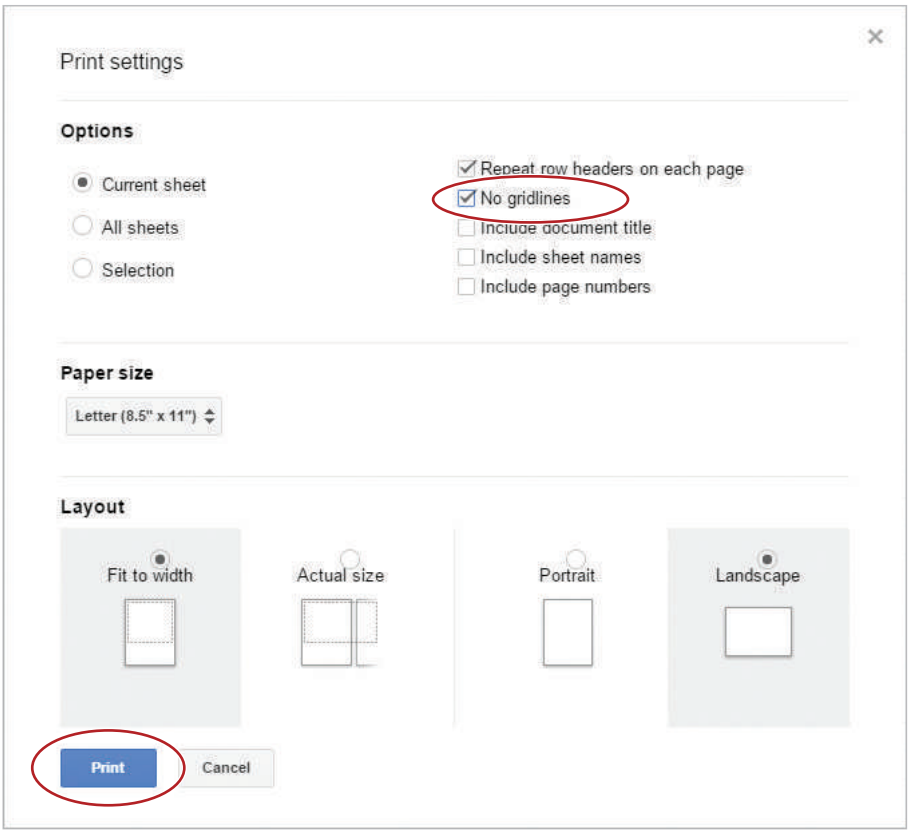
18. Proofread your spreadsheet for accuracy and format.

19. Print Preview or Print a Spreadsheet. To print your spreadsheet or preview it before printing, do the following:

a. Click the **Print** icon.



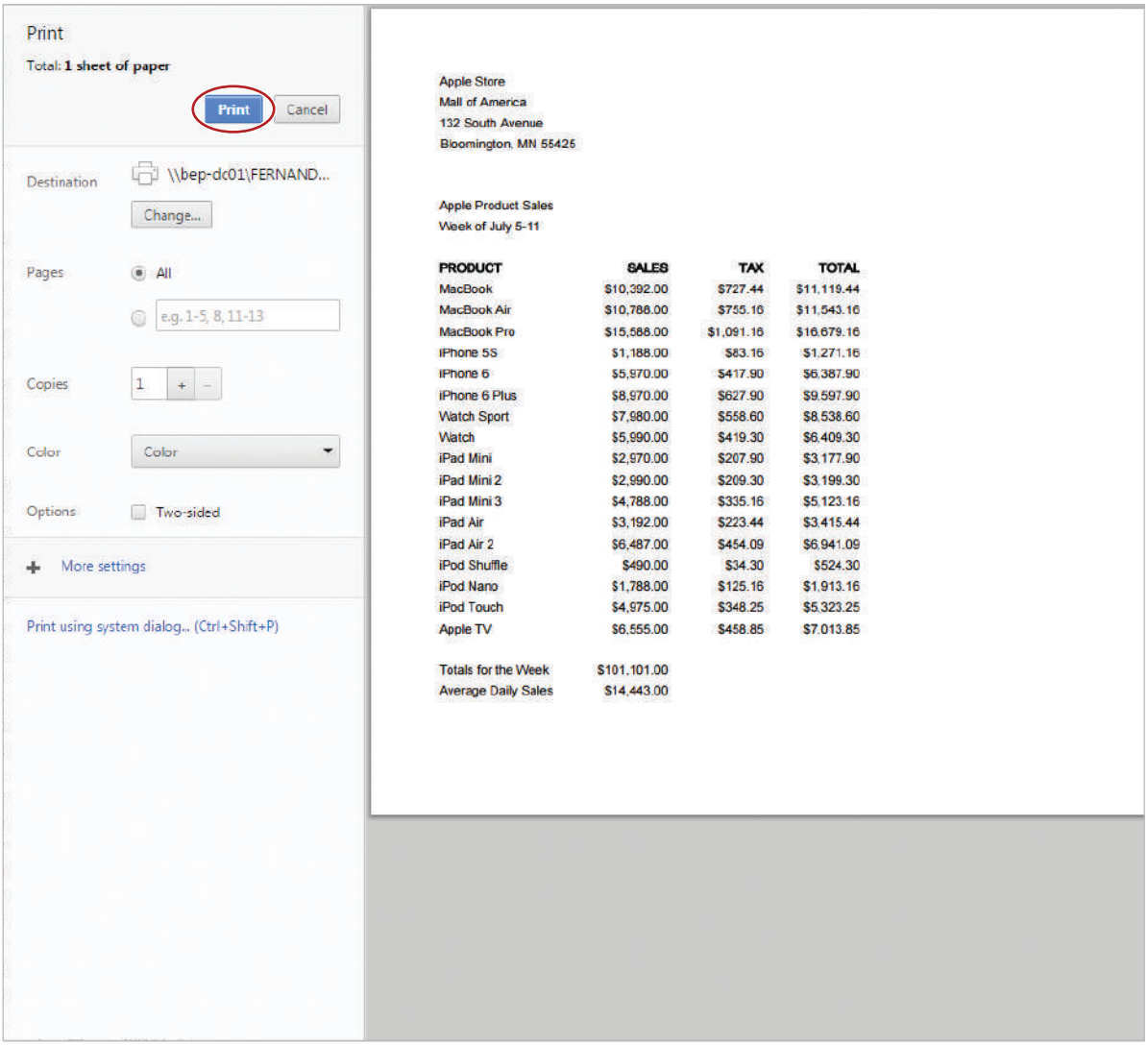
b. In the **Print settings** dialog box, in the **Options** section, click the **No gridlines** checkbox, then click the **Print** button.



c. Your spreadsheet should look similar to 3.2 Figure B.

d. To print your spreadsheet, click the **Print** button.

Hint: To continue editing your spreadsheet, click Cancel.



20. Share your spreadsheet if required.

3.2 Figure A

	A	B	C	D	E	F
1	Apple Store					
2	Mall of America					
3	132 South Avenue					
4	Bloomington, MN 55425					
5						
6						
7	Apple Product Sales					
8	Week of July 5-11					
9						
10	PRODUCT	SALES	TAX	TOTAL		
11	Mac Book	10392				
12	Mac Book Air	10788				
13	Mac Book Pro	15588				
14	iPhone 5S	1188				
15	iPhone 6	5970				
16	iPhone 6 Plus	8970				
17	Watch Sport	7980				
18	Watch	5990				
19	iPad Mini	2970				
20	iPad Mini 2	2990				
21	iPad Mini 3	4788				
22	iPad Air	3192				
23	iPad Air 2	6487				
24	iPod Shuffle	490				
25	iPod Nano	1788				
26	iPod Touch	4975				
27	Apple TV	6555				
28						
29	Totals for the Week					
30	Average Daily Sales					
31						

3.2 Figure B

Apple Store
Mall of America
132 South Avenue
Bloomington, MN 55425

Apple Product Sales
Week of July 5-11

PRODUCT	SALES	TAX	TOTAL
MacBook	$10,392.00	$727.44	$11,119.44
MacBook Air	$10,788.00	$755.16	$11,543.16
MacBook Pro	$15,588.00	$1,091.16	$16,679.16
iPhone 5S	$1,188.00	$83.16	$1,271.16
iPhone 6	$5,970.00	$417.90	$6,387.90
iPhone 6 Plus	$8,970.00	$627.90	$9,597.90
Watch Sport	$7,980.00	$558.60	$8,538.60
Watch	$5,990.00	$419.30	$6,409.30
iPad Mini	$2,970.00	$207.90	$3,177.90
iPad Mini 2	$2,990.00	$209.30	$3,199.30
iPad Mini 3	$4,788.00	$335.16	$5,123.16
iPad Air	$3,192.00	$223.44	$3,415.44
iPad Air 2	$6,487.00	$454.09	$6,941.09
iPod Shuffle	$490.00	$34.30	$524.30
iPod Nano	$1,788.00	$125.16	$1,913.16
iPod Touch	$4,975.00	$348.25	$5,323.25
Apple TV	$6,555.00	$458.85	$7,013.85

Totals for the Week	$101,101.00
Average Daily Sales	$14,443.00

Senior Project Workshop

Using Formulas

Overview

For your senior project, you have decided to hold several workshops to help teachers utilize Google Sheets as a tool to calculate students' grades and averages. You have decided to create a sample spreadsheet to use as a guide when demonstrating its useful features and capabilities.

New Skills

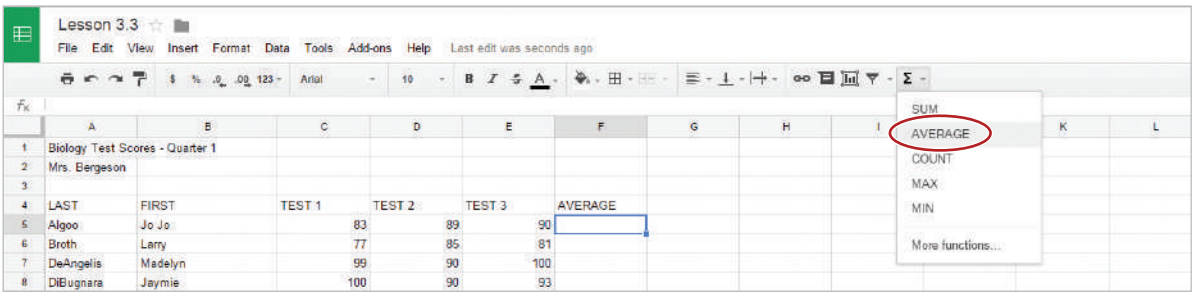
Use Formulas (AVERAGE, MAXIMUM, MINIMUM) • Increase/Decrease Decimal Places • Cut and Paste Text • Add Borders • Change Page Orientation

In this lesson, you will use formulas to find the highest, lowest, and average student test scores.

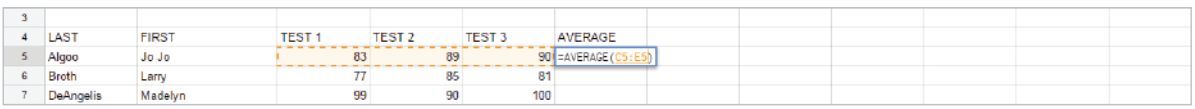
Instructions

1. In your My Sheets folder, create a new spreadsheet and name it Lesson 3.3.
2. Enter the data as shown in 3.3 Figure A.
3. **Find the Average.** To calculate each student's test score average, do the following:

   a. In cell F5, from the Functions drop-down menu, select **AVERAGE**.



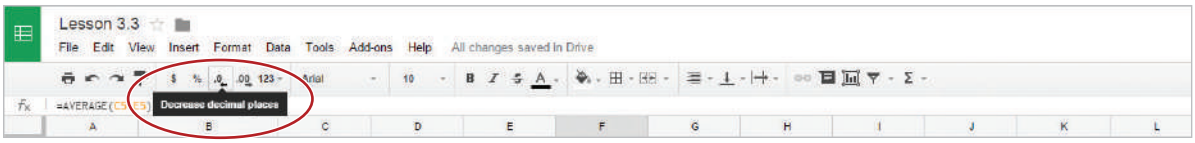
   b. When prompted to select the range of cells, select cells C5-E5.



c. Hit the Enter key for the spreadsheet to calculate the formula.

d. To apply the formula in cell F5 to other cells, select cell F5 and drag the Auto Fill handle down to cells F6-F30. Alternatively, double-click the Auto Fill handle in cell F5.

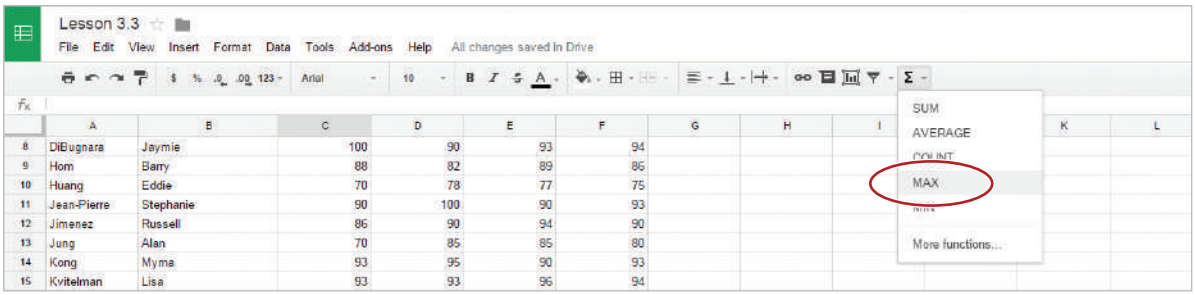
4. **Increase/Decrease Decimal Places.** To increase or decrease the number of decimal places to the right of the decimal point, select cells F5-F30, click the **Decrease decimal places** icon and remove all decimal places from the average. Notice that the average is rounded to the nearest whole number.



5. Insert a formula in cells C33, D33, and E33 to find the class average for each test, then remove all decimal places.

6. **Find the Maximum.** To calculate the highest score for Test 1, do the following:

a. In cell C34, from the Functions drop-down menu, select **MAX**.



	A	B	C	D	E	F
8	DiBugnara	Jaymie	100	90	93	94
9	Hom	Barry	88	82	89	86
10	Huang	Eddie	70	78	77	75
11	Jean-Pierre	Stephanie	90	100	90	93
12	Jimenez	Russell	86	90	94	90
13	Jung	Alan	70	85	85	80
14	Kong	Myma	93	95	90	93
15	Kvitelman	Lisa	93	93	96	94

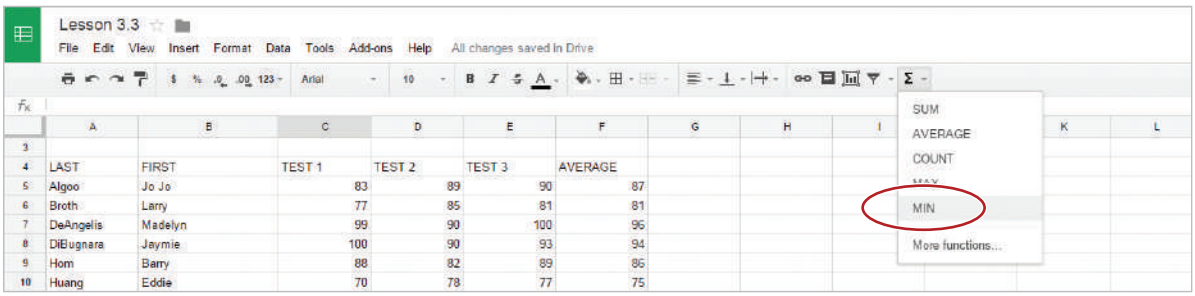
b. When prompted to select the range of cells, select cells C5-C30.

c. Hit the Enter key for the spreadsheet to calculate the formula.

d. To apply the formula in cell C34 to other cells, select cell C34 and drag the Auto Fill handle to the right to cells D34 and E34.

7. **Find the Minimum.** To calculate the lowest score for Test 1, do the following:

a. In cell C35, from the Functions drop-down menu, select **MIN**.



	A	B	C	D	E	F
3						
4	LAST	FIRST	TEST 1	TEST 2	TEST 3	AVERAGE
5	Algoo	Jo Jo	83	89	90	87
6	Broth	Larry	77	85	81	81
7	DeAngelis	Madelyn	99	90	100	96
8	DiBugnara	Jaymie	100	90	93	94
9	Hom	Barry	88	82	89	86
10	Huang	Eddie	70	78	77	75

b. When prompted to select the range of cells, select cells C5-C30.

c. Hit the Enter key for the spreadsheet to calculate the formula.

d. To apply the formula in cell C35 to other cells, select cell C35 and drag the Auto Fill handle to the right to cells D35 and E35.

8. Bold Row 4.

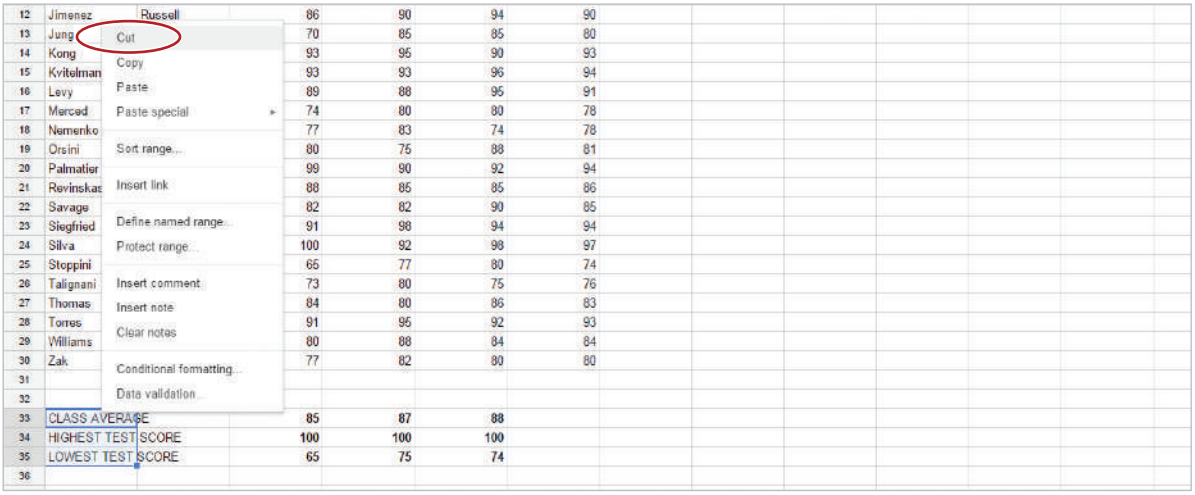
Hint: To select an entire row, click the row heading containing the row number.

9. Right align cells C4-F4.

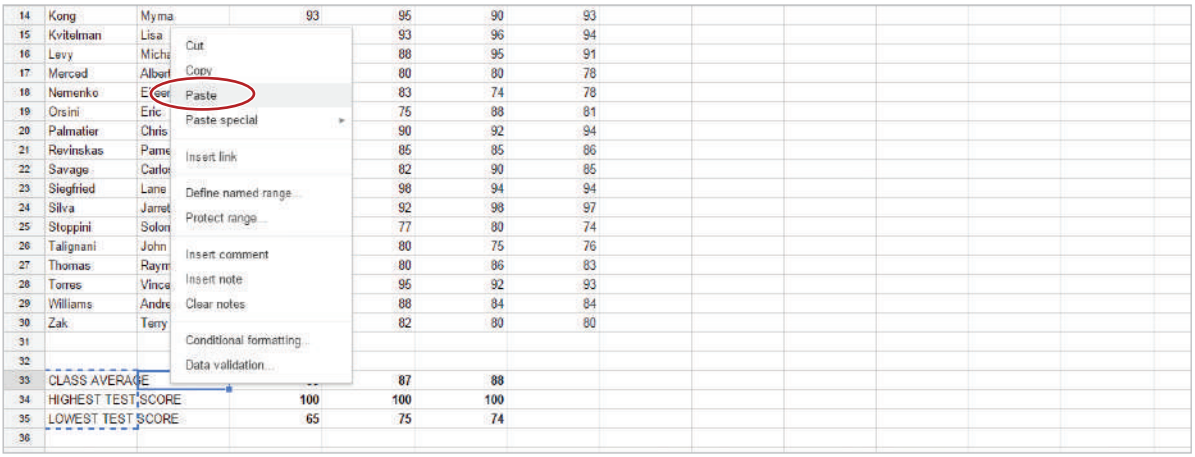
10. Bold cells C33-E35.

11. Cut and Paste Text. To cut text and move it to another cell in your spreadsheet, do the following:

a. Select cells A33-A35, right-click, and select **Cut**.



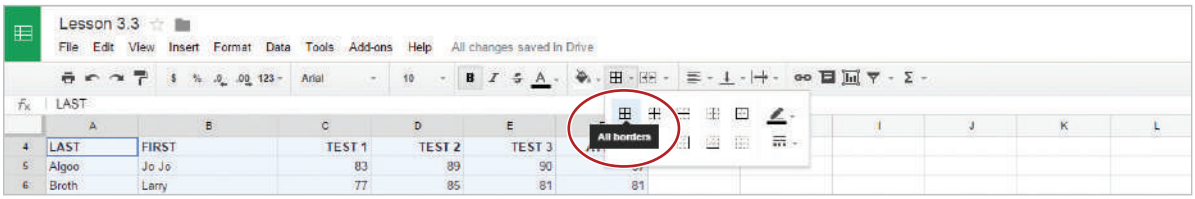
b. Position your cursor in cell B33, right-click, and select **Paste**.



Alternatively, the Cut and Paste tools are located in the Edit menu.

c. Resize column B so that all data is visible.

12. **Add Borders.** To add a line around a cell or group of cells in your spreadsheet, select cells A4-F30, then from the **Borders** drop-down menu, select **All borders**.



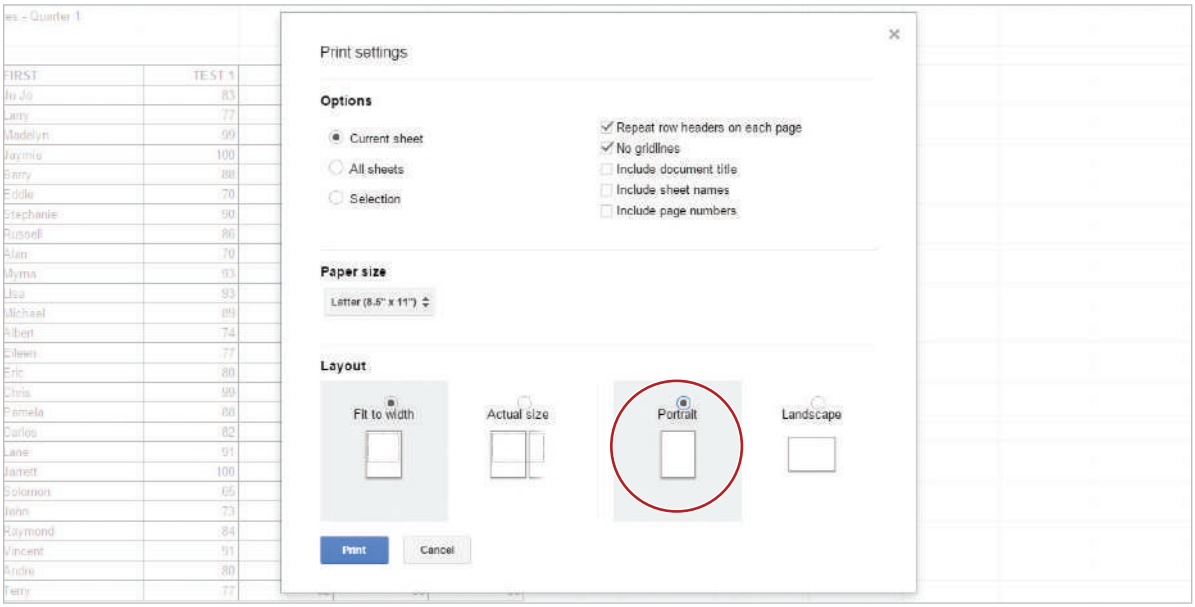
13. Proofread your spreadsheet for accuracy and format.

14. Print preview and remove gridlines from your spreadsheet.

15. **Change Page Orientation.** To change the orientation of your page from Landscape to Portrait, do the following:

    a. Click the **Print** icon.

    b. In the **Print settings** dialog box, in the **Layout** section, click the **Portrait** option, then click the **Print** button.



16. Your spreadsheet should look similar to 3.3 Figure B.

17. Share or print your spreadsheet if required.

3.3 Figure A

	A	B	C	D	E	F	G
1	Biology Test Scores - Quarter 1						
2	Mrs. Bergeson						
3							
4	LAST	FIRST	TEST 1	TEST 2	TEST 3	AVERAGE	
5	Algoo	Jo Jo	83	89	90		
6	Broth	Larry	77	85	81		
7	DeAngelis	Madelyn	99	90	100		
8	DiBugnara	Jaymie	100	90	93		
9	Hom	Barry	88	82	89		
10	Huang	Eddie	70	78	77		
11	Jean-Pierre	Stephanie	90	100	90		
12	Jimenez	Russell	86	90	94		
13	Jung	Alan	70	85	85		
14	Kong	Myrna	93	95	90		
15	Kvitelman	Lisa	93	93	96		
16	Levy	Michael	89	88	95		
17	Merced	Albert	74	80	80		
18	Nemenko	Eileen	77	83	74		
19	Orsini	Eric	80	75	88		
20	Palmatier	Chris	99	90	92		
21	Revinskas	Pamela	88	85	85		
22	Savage	Carlos	82	82	90		
23	Siegfried	Lane	91	98	94		
24	Silva	Jarrett	100	92	98		
25	Stoppini	Solomon	65	77	80		
26	Talignani	John	73	80	75		
27	Thomas	Raymond	84	80	86		
28	Torres	Vincent	91	95	92		
29	Williams	Andre	80	88	84		
30	Zak	Terry	77	82	80		
31							
32							
33	CLASS AVERAGE						
34	HIGHEST TEST SCORE						
35	LOWEST TEST SCORE						
36							
37							
38							
39							

3.3 Figure B

Biology Test Scores - Quarter 1

Mrs. Bergeson

LAST	FIRST	TEST 1	TEST 2	TEST 3	AVERAGE
Algoo	Jo Jo	83	89	90	87
Broth	Larry	77	85	81	81
DeAngelis	Madelyn	99	90	100	96
DiBugnara	Jaymie	100	90	93	94
Hom	Barry	88	82	89	86
Huang	Eddie	70	78	77	75
Jean-Pierre	Stephanie	90	100	90	93
Jimenez	Russell	86	90	94	90
Jung	Alan	70	85	85	80
Kong	Myrna	93	95	90	93
Kvitelman	Lisa	93	93	96	94
Levy	Michael	89	88	95	91
Merced	Albert	74	80	80	78
Nemenko	Eileen	77	83	74	78
Orsini	Eric	80	75	88	81
Palmatier	Chris	99	90	92	94
Revinskas	Pamela	88	85	85	86
Savage	Carlos	82	82	90	85
Siegfried	Lane	91	98	94	94
Silva	Jarrett	100	92	98	97
Stoppini	Solomon	65	77	80	74
Talignani	John	73	80	75	76
Thomas	Raymond	84	80	86	83
Torres	Vincent	91	95	92	93
Williams	Andre	80	88	84	84
Zak	Terry	77	82	80	80

CLASS AVERAGE	**85**	**87**	**88**
HIGHEST TEST SCORE	**100**	**100**	**100**
LOWEST TEST SCORE	**65**	**75**	**74**

Top 10 Schools

Working with Hyperlinks

Overview

You have decided on a college major, Marketing. The next step is to narrow down the colleges and universities you would like to research before selecting the one that is best for you. To help organize your research, you want to create a spreadsheet that includes web site links to the top colleges for the major you have selected.

New Skills

Insert a Link • Format Column Width • Use Text Wrap • Use Paint Format

In this lesson, you will create a spreadsheet containing a list of colleges with information and a hyperlink for each college.

Instructions

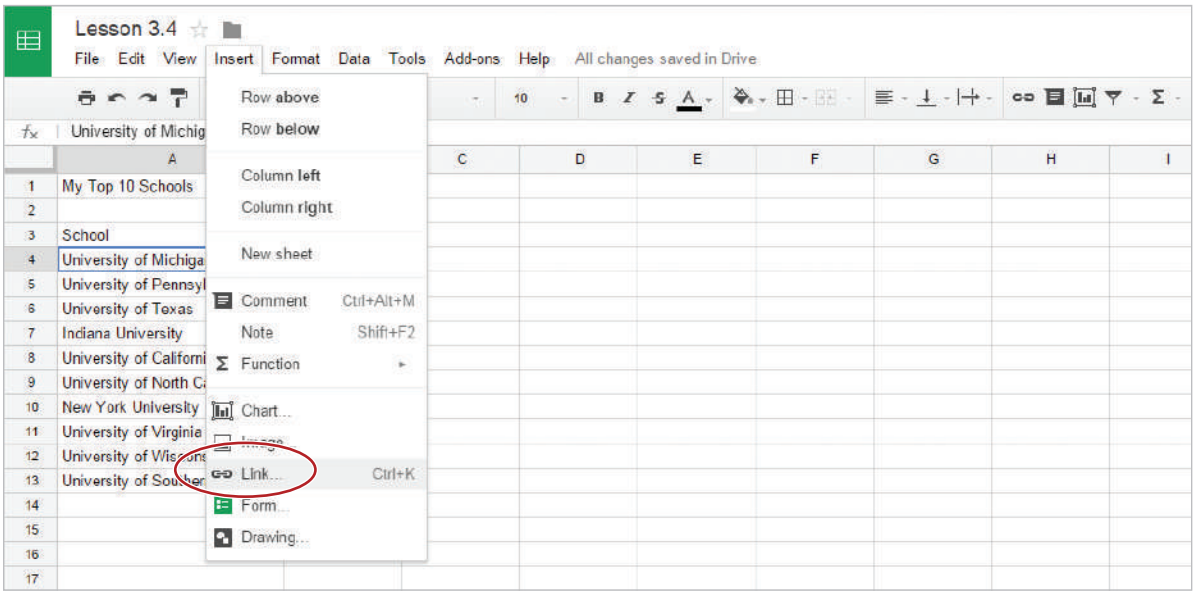
1. In your My Sheets folder, create a new spreadsheet and name it Lesson 3.4.
2. Enter the data as shown below.

   Note: Unless otherwise noted, resize the column widths to fit cell contents

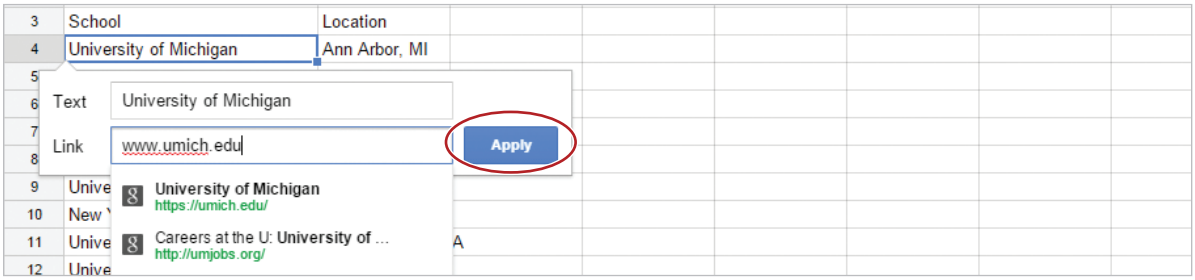
	A	B	C	D	E
1	My Top 10 Schools				
2					
3	School	Location			
4	University of Michigan	Ann Arbor, MI			
5	University of Pennsylvania	Philadelphia, PA			
6	University of Texas	Austin, TX			
7	Indiana University	Bloomington, IN			
8	University of California	Berkeley, CA			
9	University of North Carolina	Chapel Hill, NC			
10	New York University	New York, NY			
11	University of Virginia	Charlottesville, VA			
12	University of Wisconsin	Madison, WI			
13	University of Southern California	Los Angeles, CA			
14					

3. Insert a Link. To insert a hyperlink for quick access to a web page, do the following:

a. In cell A4, from the **Insert** menu, select **Link**.



b. In the **Link dialog box,** type [www.umich.edu] into the **Link** field, then click **Apply**.



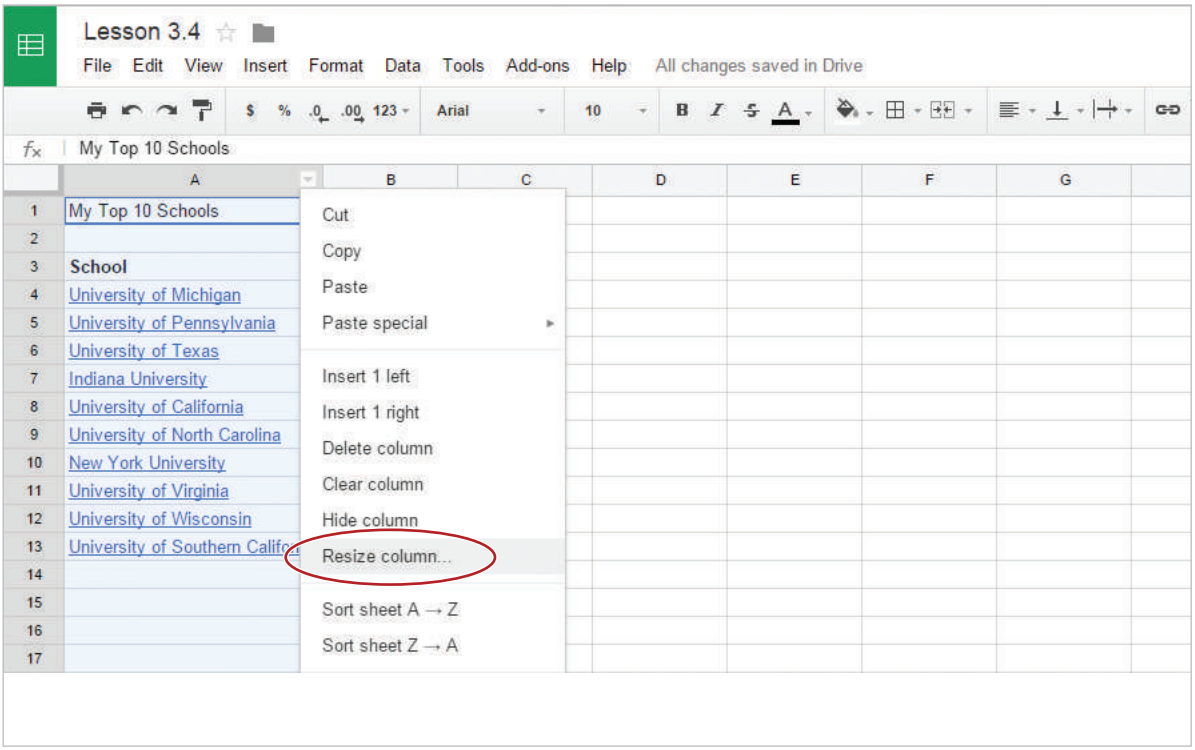
c. Continue adding hyperlinks to the list of colleges in column A, using the web site addresses in the table below.

University of Pennsylvania	www.upenn.edu
University of Texas	www.utexas.edu
Indiana University	www.iu.edu
University of California	www.berkeley.edu
University of North Carolina	www.unc.edu
New York University	www.nyu.edu
University of Virginia	www.virginia.edu
University of Wisconsin	www.wisc.edu
University of Southern California	www.usc.edu

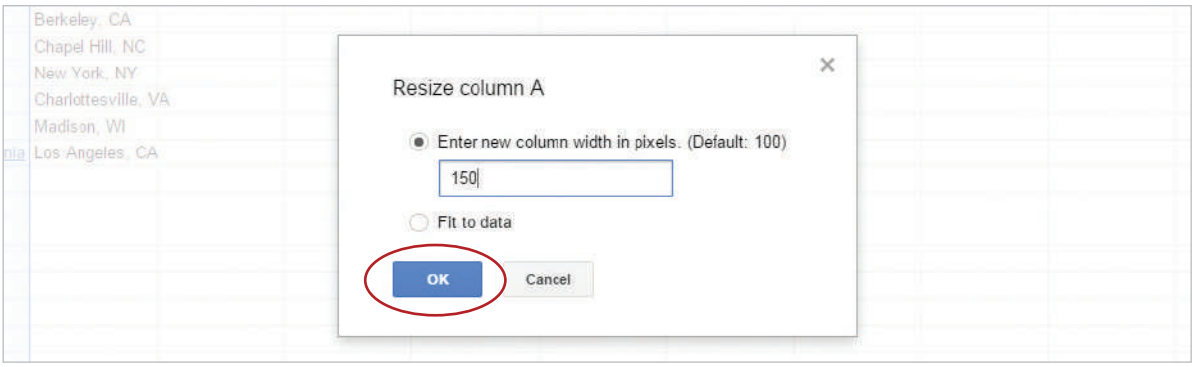
4. Bold row 3.

5. Format Column Width. To resize a column to a specific number of pixels, do the following:

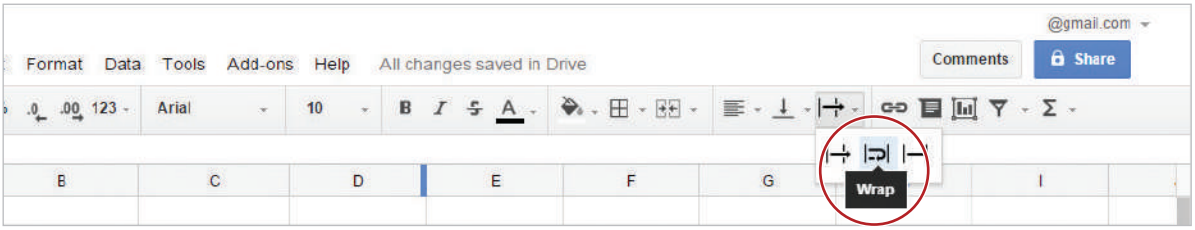
a. Place your cursor over column heading A until the drop-down arrow appears, click the arrow, then select **Resize column**.



b. In the **Resize column A** dialog box, enter **150** for your new column width, then click **OK**.



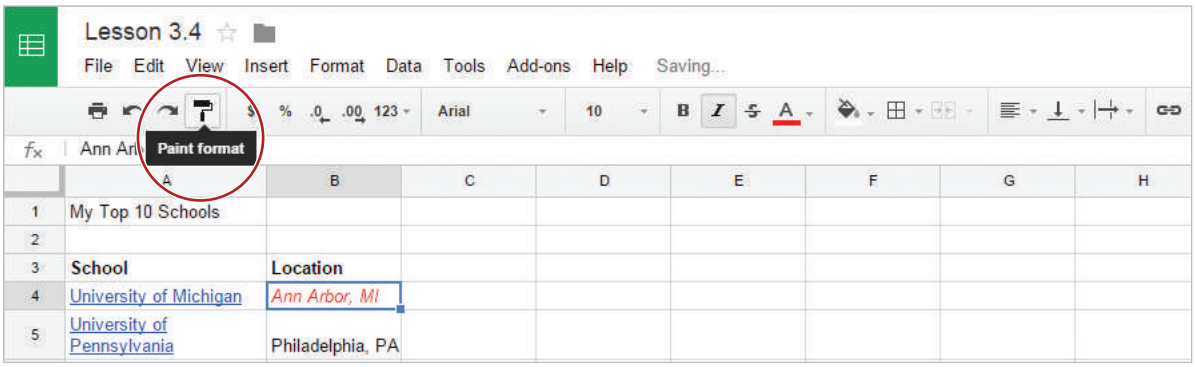
6. Use Text Wrap. For data to be displayed on multiple lines within a cell, select cells A4-A13, then from the **Text Wrapping** drop-down menu, select **Wrap**.



7. Italicize and change the font color of cell B4 to red.

8. **Use Paint Format.** To replicate existing formatting to other data in a spreadsheet, do the following:

   a. With cell B4 still selected, click the **Paint format** icon.



   b. Select cells B5-B13. All of the school locations should now be italics and red.

9. Bold and increase the font size of cell A1 to 18.

10. Proofread your spreadsheet for accuracy and format.

11. Print preview. Your spreadsheet should look similar to 3.4 Figure A.

12. Share or print your spreadsheet if required.

3.4 Figure A

My Top 10 Schools	
School	**Location**
University of Michigan	*Ann Arbor, MI*
University of Pennsylvania	*Philadelphia, PA*
University of Texas	*Austin, TX*
Indiana University	*Bloomington, IN*
University of California	*Berkeley, CA*
University of North Carolina	*Chapel Hill, NC*
New York University	*New York, NY*
University of Virginia	*Charlottesville, VA*
University of Wisconsin	*Madison, WI*
University of Southern California	*Los Angeles, CA*

Coffee Shop Sales

Creating Pie and Column Charts

Overview

You have been working at a coffee shop after school for the past eight months. Each week, your manager gives the employee with the highest sales a $25 gift card. You offer to visually illustrate weekly sales by creating pie and column charts. To motivate the staff, these will be posted on the employee bulletin board.

In this lesson, you will create a pie and column chart to illustrate weekly sales.

New Skills

Merge Cells • Use Fill Color • Rename a Sheet • Insert a New Sheet • Copy Data • Sort Data • Create Pie & Column Charts

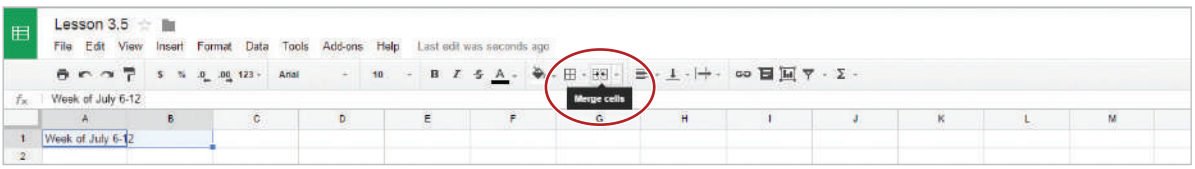
Instructions

1. In your My Sheets folder, create a new spreadsheet and name it Lesson 3.5.
2. Enter the data as shown below.

	A	B	C	D	E	F	G
1	Week of July 6-12						
2							
3	Day	Sales					
4	Monday	2250					
5	Tuesday	1800					
6	Wednesday	3500					
7	Thursday	4700					
8	Friday	4900					
9	Saturday	9750					
10	Sunday	7925					

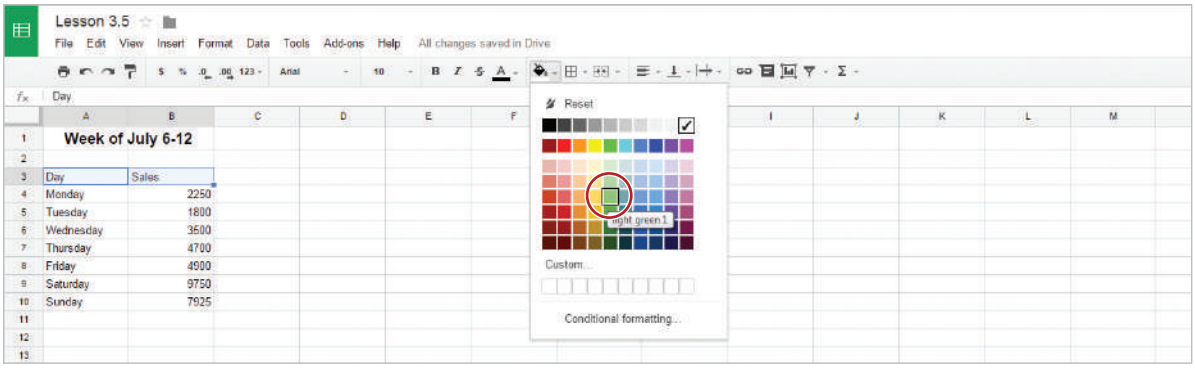
Hint: Use Auto Fill in column A.

3. **Merge Cells.** To combine selected cells into a single larger cell, select cells A1 and B1, then click the **Merge cells** icon.



4. Center align, bold, and change the font size of cell A1 to 14.

5. **Use Fill Color.** To add background color to a cell, select cells A3 and B3, then from the **Fill color** drop-down menu, select **light green 1**.

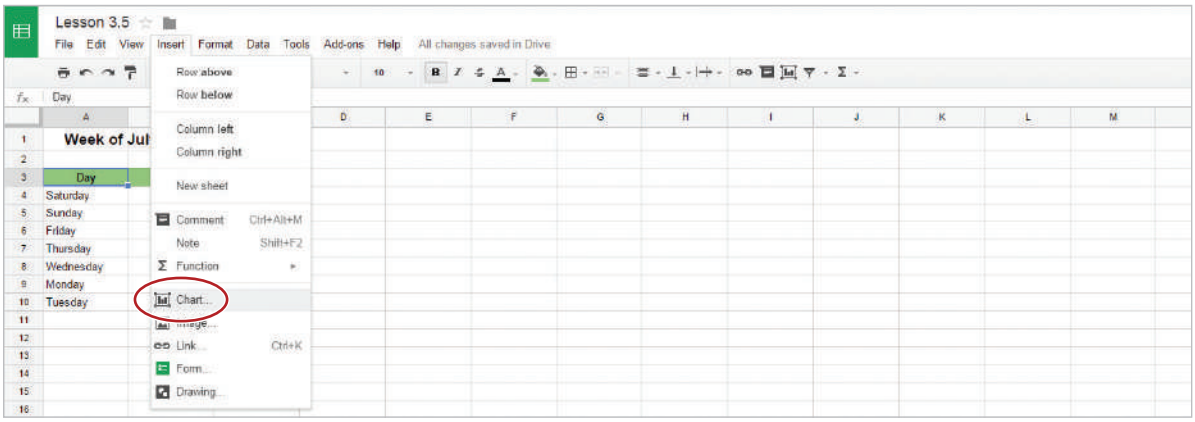


6. Center align and bold cells A3 and B3.

7. Format column B as currency.

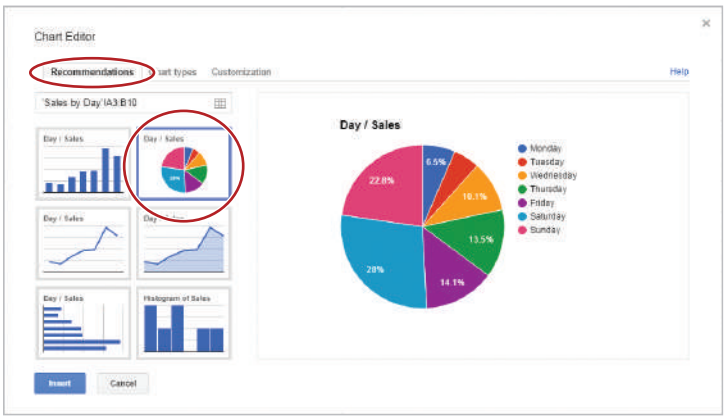
8. **Create a Pie Chart.** To create a pie chart to show proportions of a whole, do the following:

   a. Select cell A3, then from the **Insert** menu, select **Chart**.



   b. In the **Chart Editor** dialog box, from the **Recommendations** tab, select the **Pie chart** thumbnail.

Note: A preview of your pie chart will appear on the right.



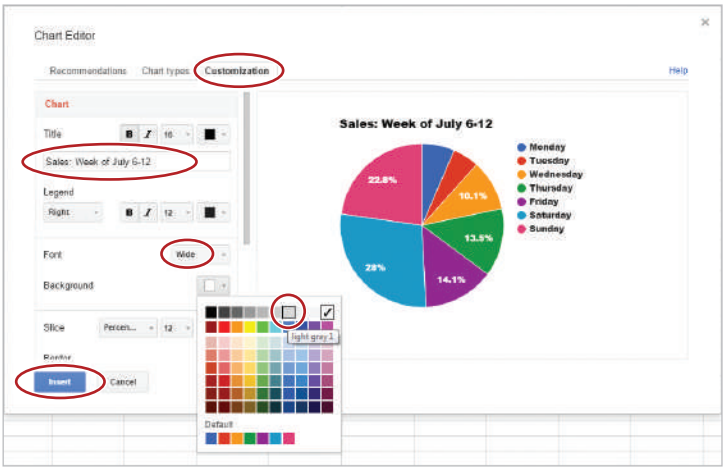
c. Click the **Customization tab** shown below.

d. In the **Chart Title** field shown below, type the text [Sales: Week of July 6-12].

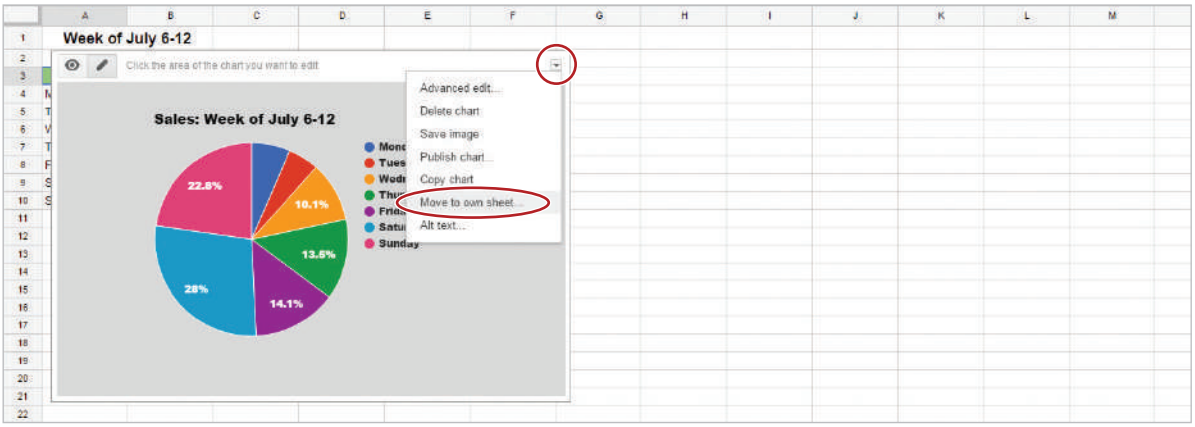
e. Change the **Font** to **Wide** and the **Background color** to **light gray 1** as shown below.

Note: Your chart should look similar to 3.5 Figure A.

f. Click the **Insert** button shown below.

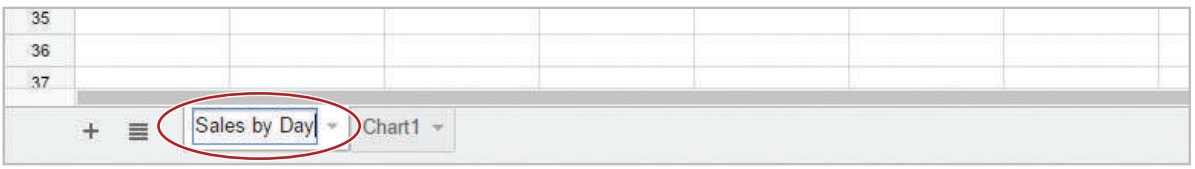


g. To move the chart to its own sheet, click on the chart, then from the drop-down menu in the top right-hand corner, select **Move to own sheet**.



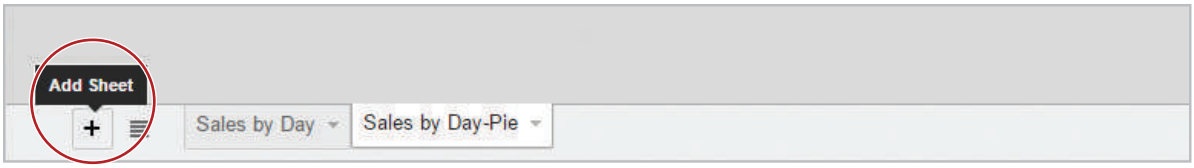
Note: The sheet named Sheet1 will display the data and the sheet named Chart1 will display the pie chart.

9. Rename a Sheet. To change the name of a sheet for easy reference, double-click the **Sheet1** tab, type [Sales by Day], then hit Enter.



10. Rename the Chart1 sheet to [Sales by Day-Pie].

11. Insert a New Sheet. To insert additional sheets into your spreadsheet, click the **Add Sheet** icon.

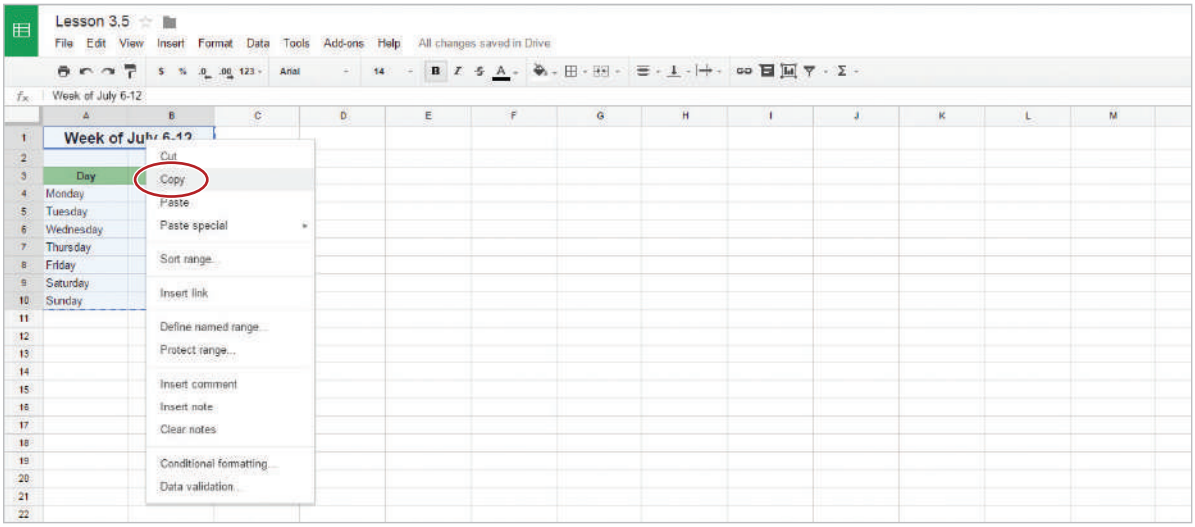


12. Rename Sheet2 to [Highest to Lowest Sales].

13. Copy Data. To copy data and duplicate it on another sheet, do the following:

a. Click the Sales by Day sheet and select cells A1-B10.

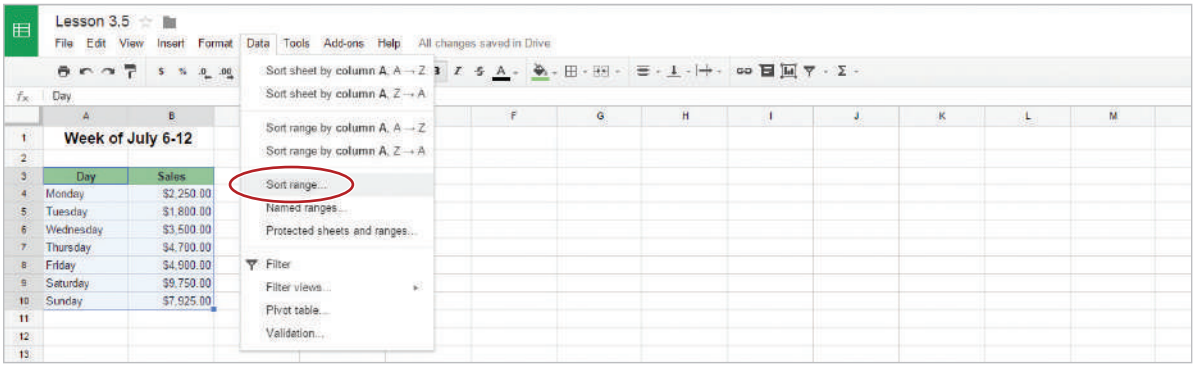
b. Right-click on the selection and select **Copy**.



c. Click the Highest to Lowest Sales sheet, right-click in cell A1, and select **Paste**.

14. Sort Data. To sort the sales data from highest to lowest, do the following:

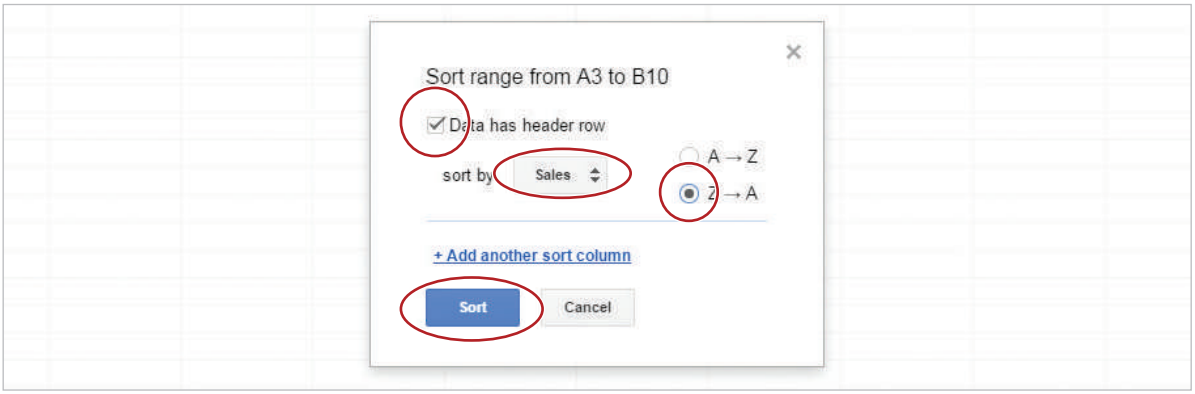
a. Select cells A3-B10, then from the **Data** menu select **Sort range**.



b. In the **Sort range** dialog box, click the **Data has header row** checkbox as shown below. The sort by drop-down options will change to reflect your column headings.

c. From the **sort by** drop-down menu, select **Sales**, select **Z-A**, then click **Sort** as shown below.

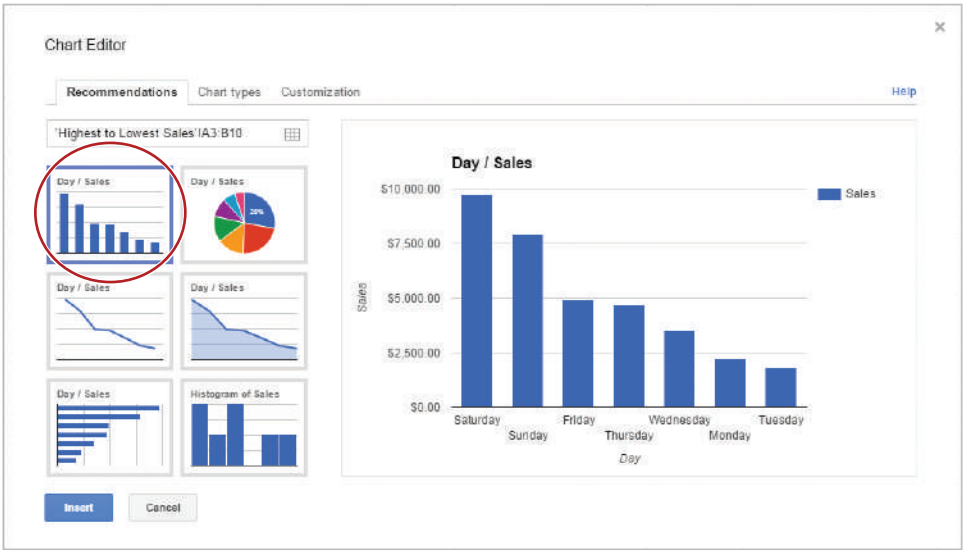
Note: The sales data is sorted highest to lowest.



15. Create a Column Chart. To create a column chart to compare values of multiple categories, do the following:

a. Select cell A3, then from the **Insert** menu, select **Chart**.

b. In the **Chart Editor** dialog box, from the **Recommendations** tab, select the **Column chart** thumbnail.



c. From the Customization tab, change the Chart Title to [Highest to Lowest Sales], the font to Tahoma, and the Background color to light blue 3.

d. From the **Legend** drop-down menu, select **None**.

e. Scroll down through the customization dialog box, then from the **Axis**, **Slant labels** drop-down menu, select **60 degrees**.

f. From the **Series**, **Color** drop-down menu, select **dark red 3**.

Note: Your chart should look similar to 3.5 Figure B.

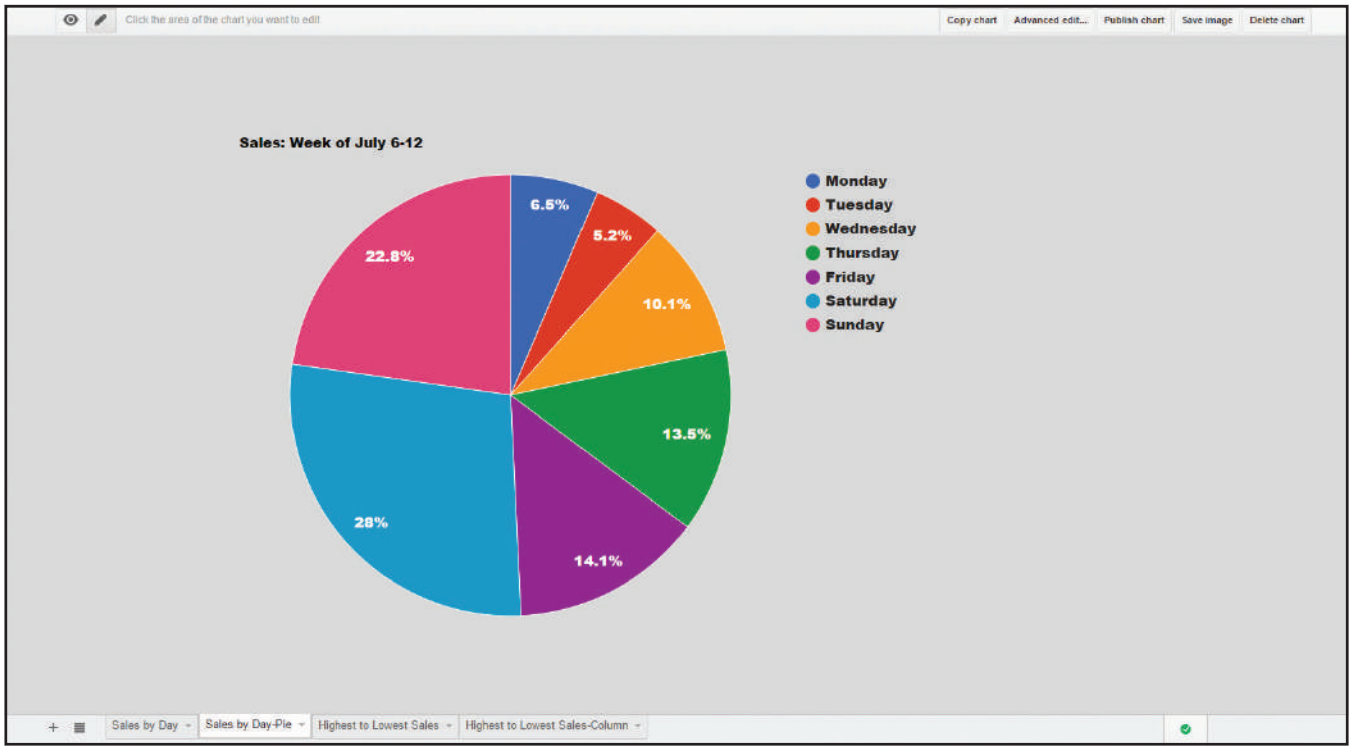
g. Insert and move the chart to its own sheet, then rename that sheet to [Highest to Lowest Sales-Column].

16. Proofread your spreadsheets for accuracy and format.

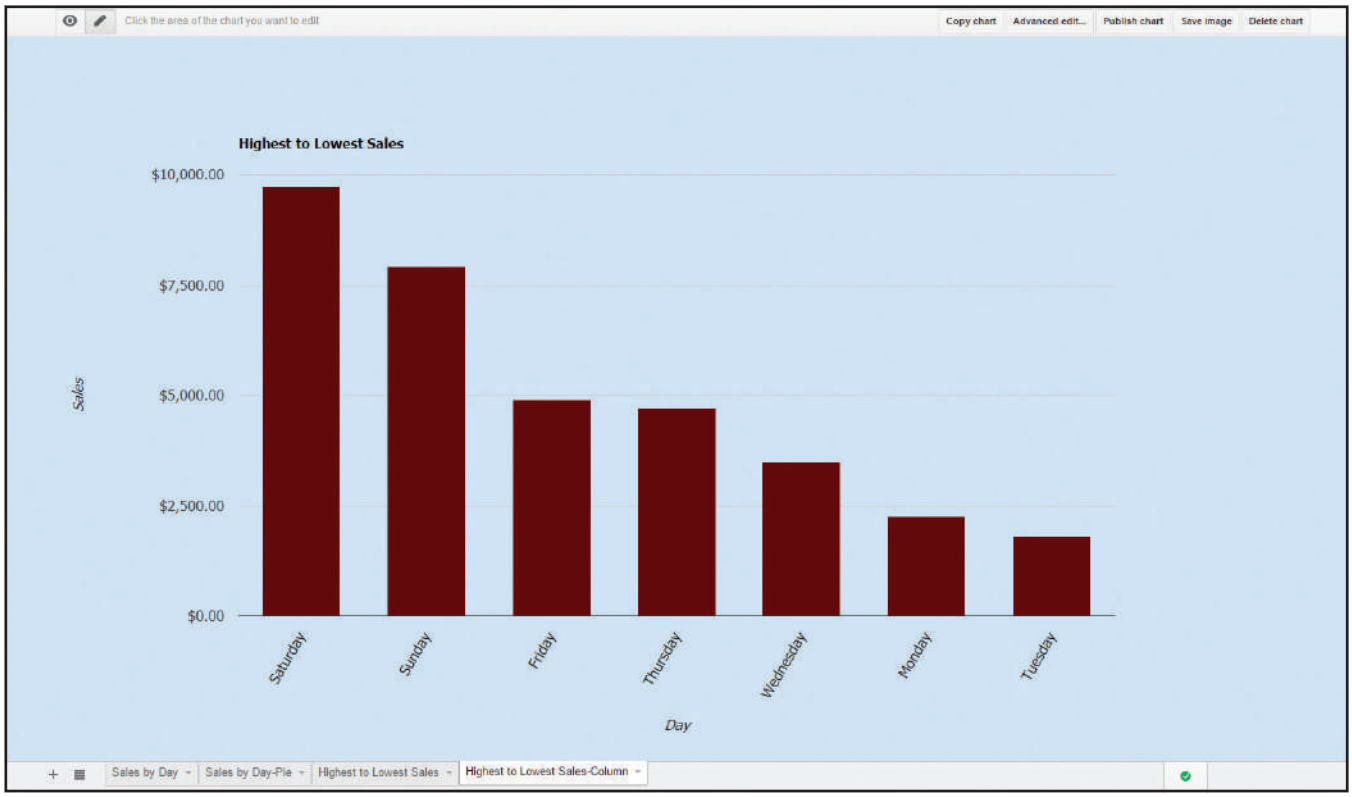
17. Print preview.

18. Share or print your spreadsheets if required.

3.5 Figure A



3.5 Figure B



Varsity Sports Attendance

Creating a Line Chart

Overview

Every five years, McKinley High School updates its athletic complex. One major update will be to increase seating in the gymnasium and the stadium fields. To help determine how many additional seats will be added this year, the athletic director asks you to create a line chart that shows the attendance growth for baseball, football, basketball, and soccer. Since you are familiar with using Google Drive, you decide to use Google Sheets.

New Skills

Format Number • Create a Line Chart • Insert an Image • Resize an Image

In this lesson, you will create a spreadsheet and line chart using sporting event attendance data.

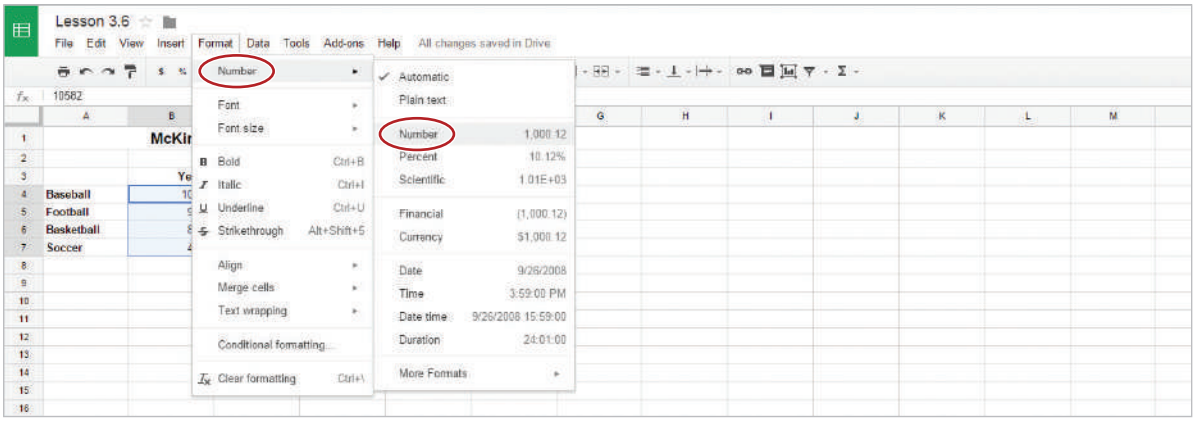
Instructions

1. In your My Sheets folder, create a new spreadsheet and name it Lesson 3.6.
2. Enter the data as shown below.

	A	B	C	D	E	F	G
1	McKinley High Athletic Event Attendance						
2							
3		Year 1	Year 2	Year 3	Year 4	Year 5	
4	Baseball	10582	7450	8765	9841	11240	
5	Football	9960	14586	15962	18625	19541	
6	Basketball	8825	11548	10254	12542	14625	
7	Soccer	4875	5687	6790	5247	7850	
8							

3. Merge cells A1-F1, center align, bold, and change the font size to 14.
4. Bold and right align row 3.
5. Bold cells A4-A7.

6. **Format Number.** To format numbers with a comma and decimal places, select cells B4-F7, then from the **Format** menu select **Number**, then select **Number**.

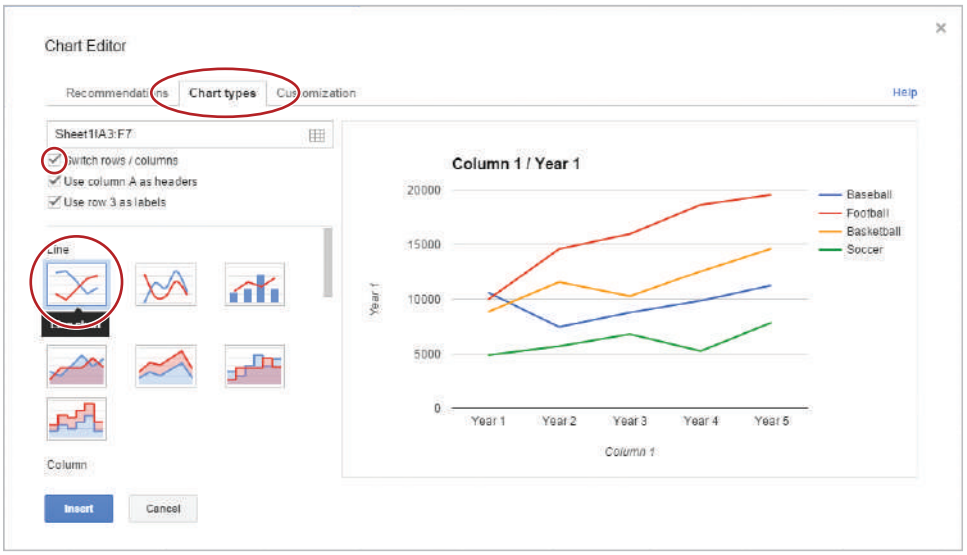


7. To round to whole numbers, decrease the decimal place of cells B4-F7 to zero decimal places.

8. **Create a Line Chart.** To create a line chart to show trends over time, do the following:

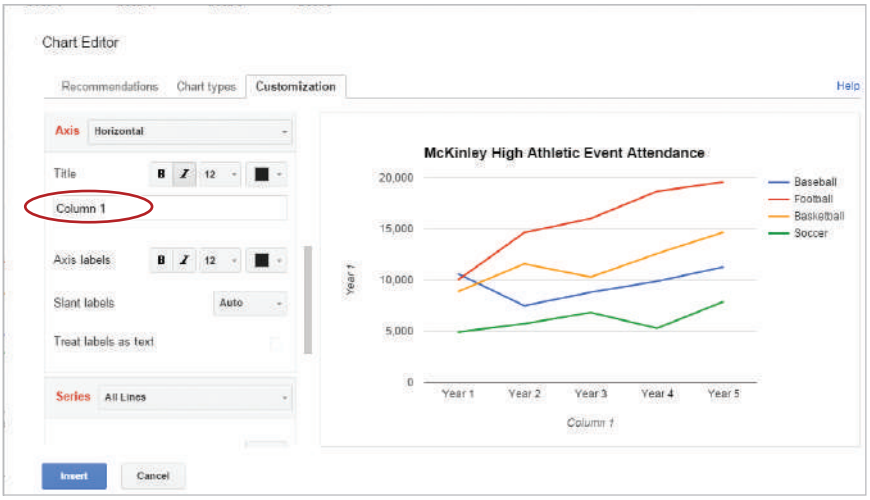
   a. Select cells A3-F7, then from the **Insert** menu, select **Chart**.

   b. In the **Chart Editor** dialog box, from the **Chart types** tab, click the **Switch rows / columns** checkbox, then select the **Line chart** thumbnail.

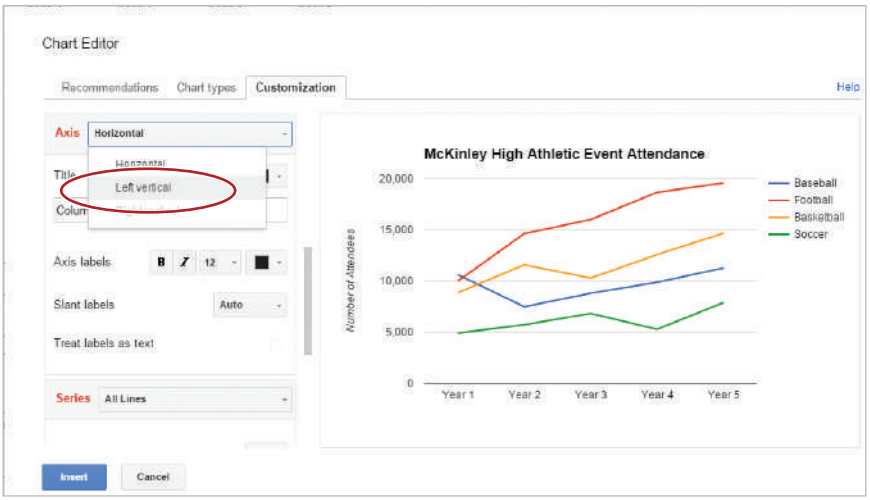


   c. From the Customization tab, copy and paste the text in cell A1 to the chart title field.

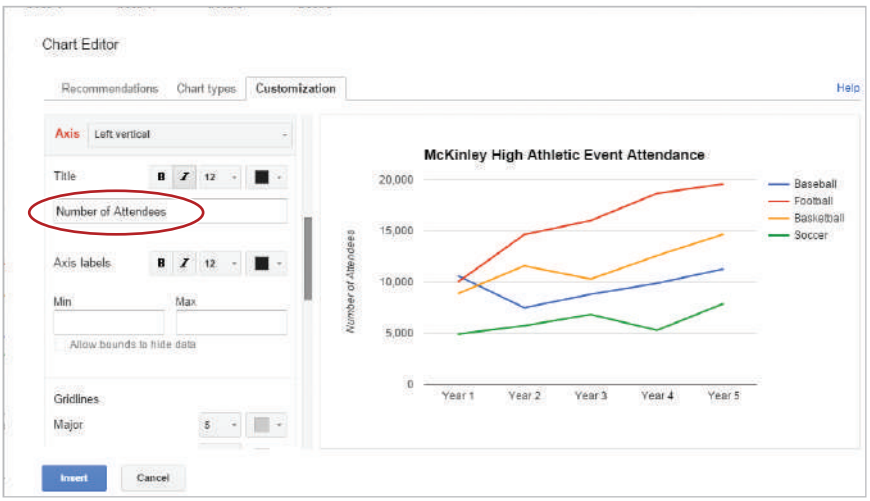
d. Delete the Horizontal Axis Title.



e. To add a title to the Y-axis, from the **Axis** drop-down menu, select **Left vertical**.

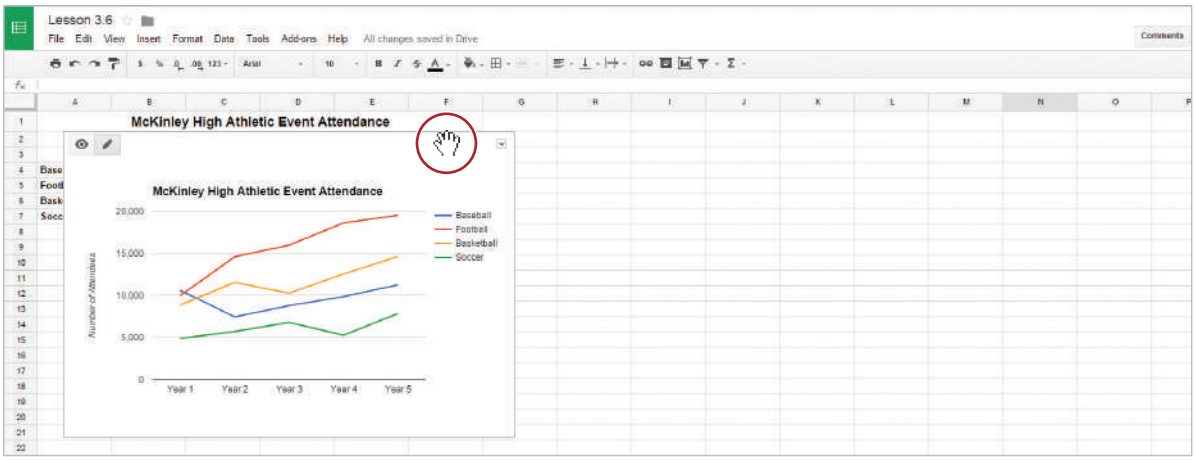


f. Change the **Axis title** to [Number of Attendees].



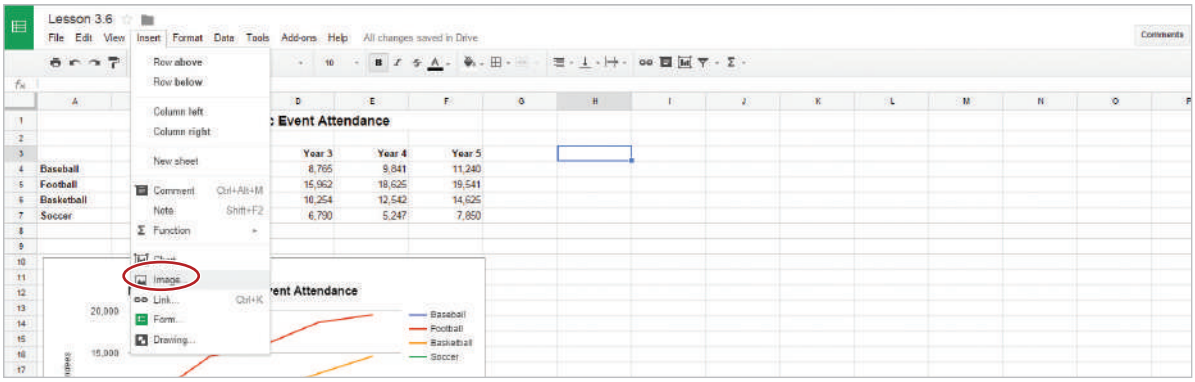
g. Insert the chart.

9. To reposition your chart so that all data is displayed, place your cursor at the top of your chart until it becomes a hand, then click and drag your chart below the data. Your spreadsheet should look similar to 3.6 Figure A.

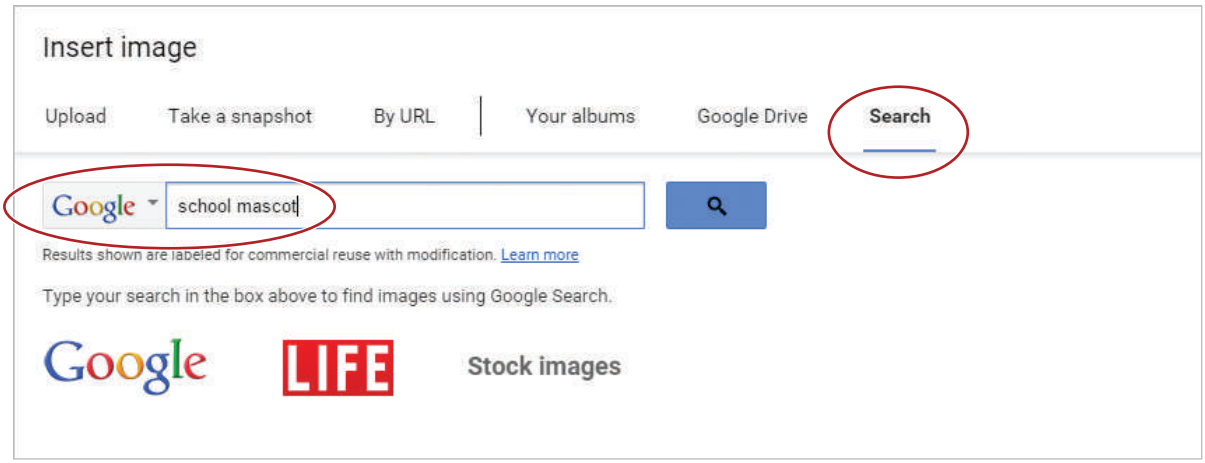


10. Insert an Image. To insert an image into your spreadsheet, do the following:

a. In cell H3, from the **Insert** menu, select **Image**.



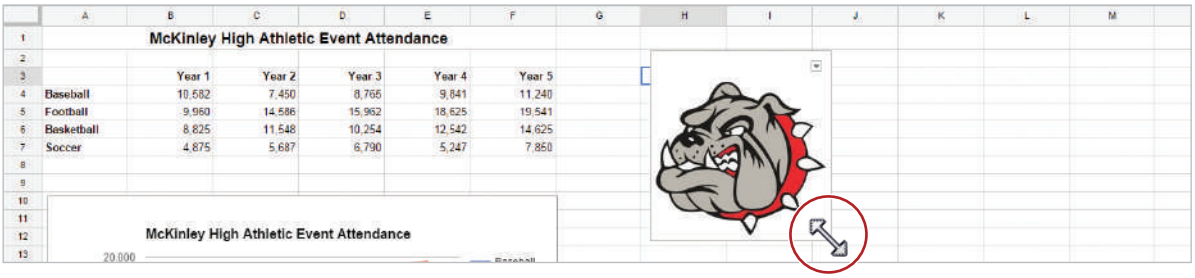
b. Click **Search**, enter [school mascot] in the **Google search** field, then hit **Enter**.



c. Double-click an image of your choice.

11. Resize an Image. To change the size of an image proportionately (larger or smaller), do the following:

a. Click the image, then place your cursor over the bottom right-hand corner until it becomes a **double-sided diagonal arrow**.



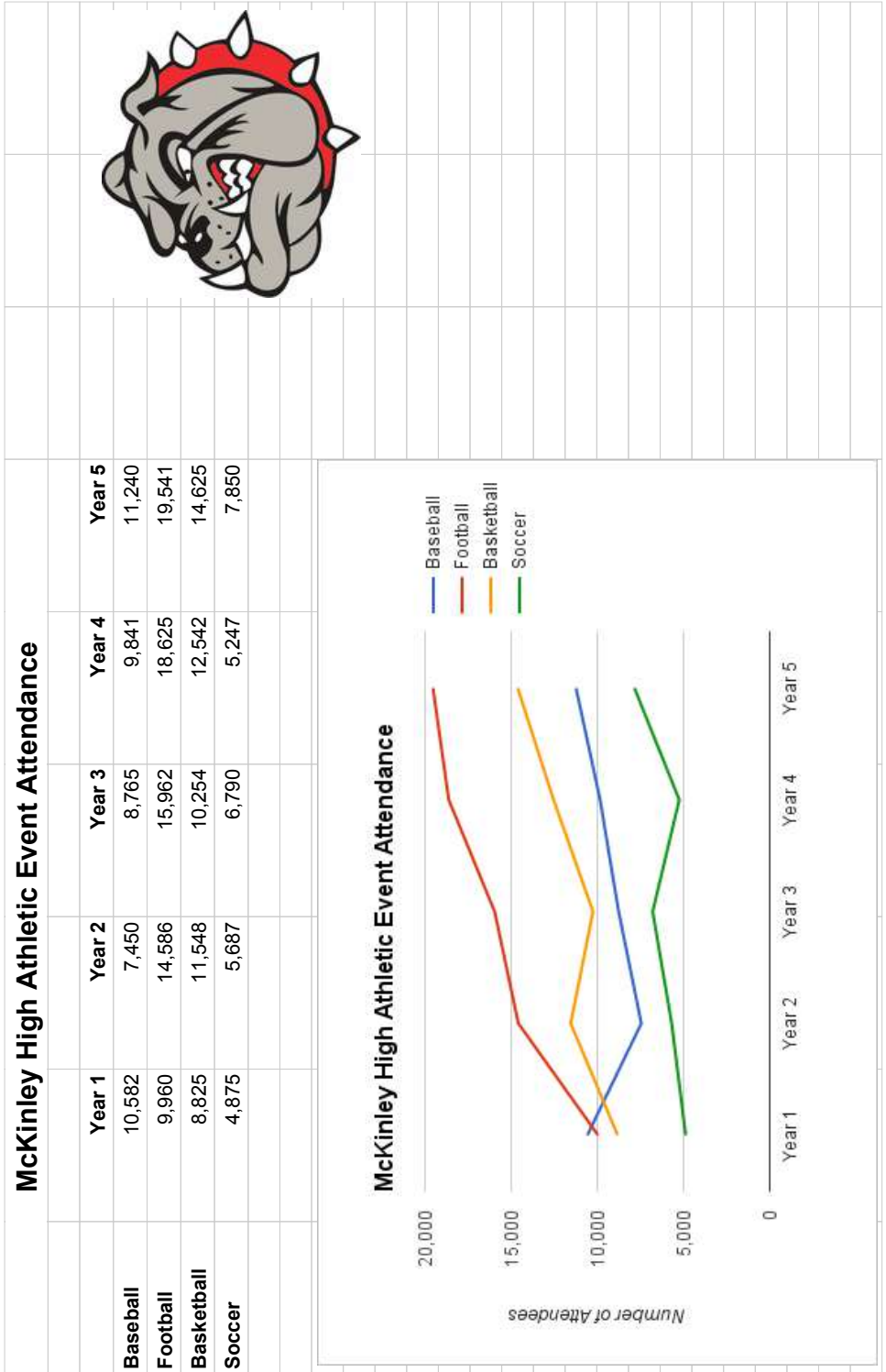
b. To resize your image proportionately, click and drag the bottom right-hand corner until it fits within columns H and I.

12. Proofread your spreadsheet for accuracy and format.

13. Print preview. Your spreadsheet should look similar to 3.6 Figure A.

14. Share or print your spreadsheet if required.

3.6 Figure A



McKinley High Athletic Event Attendance

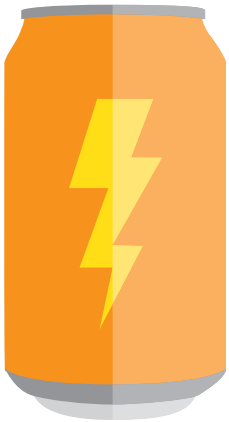
	Year 1	Year 2	Year 3	Year 4	Year 5
Baseball	10,582	7,450	8,765	9,841	11,240
Football	9,960	14,586	15,962	18,625	19,541
Basketball	8,825	11,548	10,254	12,542	14,625
Soccer	4,875	5,687	6,790	5,247	7,850

Energy Drink Comparison

Collaborating with Sheets

Overview

In health class, you are learning about nutrition. Your teacher has assigned you and a partner the task of comparing the nutritional information of several of the leading energy drinks on the market. You both decide that using a Google Sheet is an easy and effective way to work collaboratively on this project.



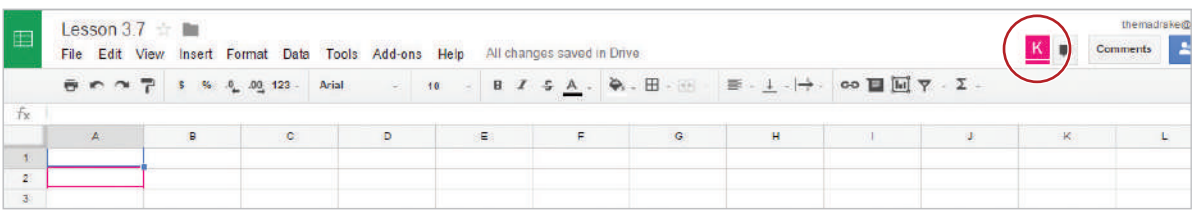
In this lesson, you and a partner will collaborate by editing a shared spreadsheet.

New Skills

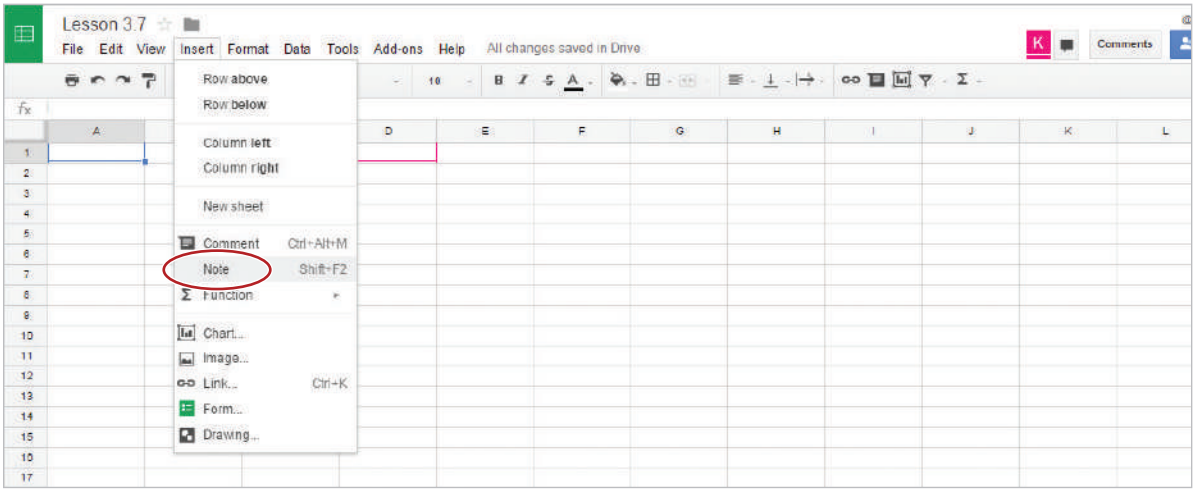
Collaborate • Insert a Note • Insert a Row • Format Row Height • Align Text Vertically

Instructions

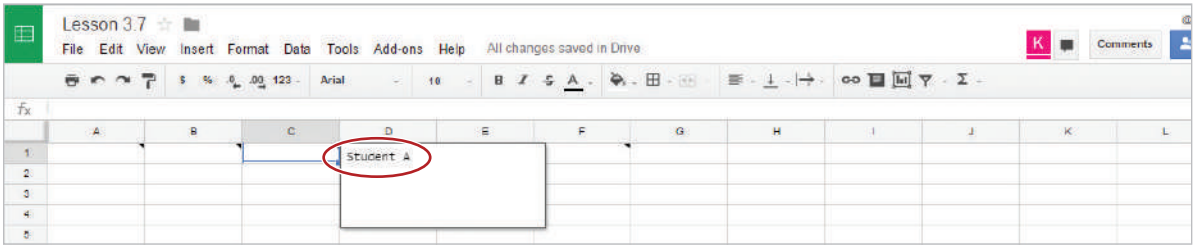
1. In order to complete this lesson, you must be assigned a partner with whom you will collaborate. Once partners have been assigned, determine who will take on the role of Student A and who will take on the role of Student B.
2. Before you begin, carefully review all of the instructions in this lesson.
3. **STUDENT A:** In your My Sheets folder, create a new spreadsheet and name it Lesson 3.7.
4. **STUDENT A:** Share the spreadsheet with **STUDENT B**. Assign them permission to edit the spreadsheet and be sure to include a note informing **STUDENT B** that you have shared a document with them.
5. **STUDENT B:** In your **Shared With Me** drive, open Lesson 3.7.
6. **Collaborate.** When more than one person is simultaneously editing a spreadsheet, a different color will be used to designate which cell has been selected by which person. A colored box will also appear at the top of the screen.



7. **Insert a Note.** To insert a note informing your teacher who entered data into which column, click on a cell, then from the **Insert** menu, select **Note**.



8. **STUDENT A:** Enter your name in a note in cells A1, B1, and C1.



9. **STUDENT B:** Enter your name in a note in cells D1, E1, and F1.

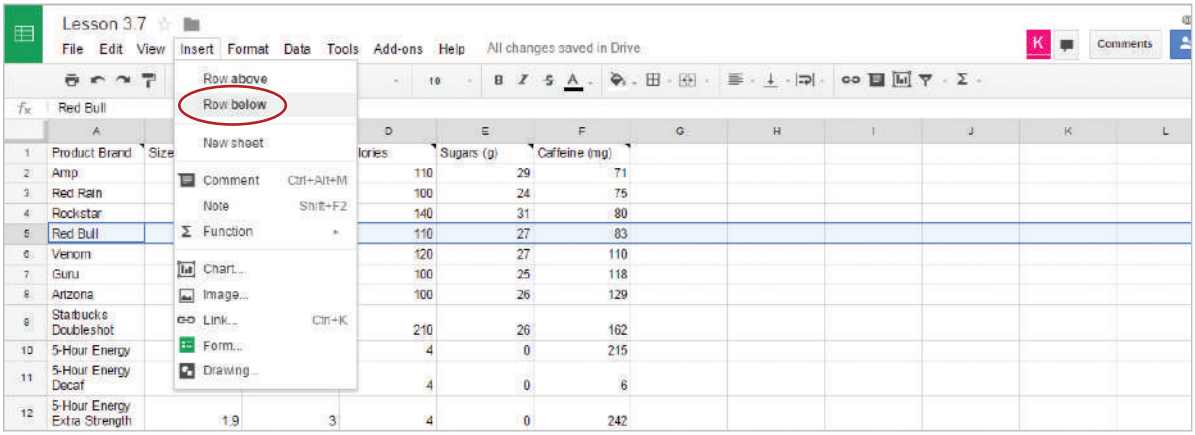
   Hint: To view a note, hover your cursor over the triangle in the corner of each cell.

10. **STUDENT A:** Enter the data in columns A, B, and C only. See 3.7 Figure A.

    Hint: Use Wrap text in column A.

11. **STUDENT B:** Enter the data in columns D, E, and F only. See 3.7 Figure A.

12. **Insert a Row.** To add a row to your spreadsheet, select a row (click the row number), then from the **Insert** menu, select **Row below**.



a. **STUDENT A:** Insert a row below row 5.

b. Enter the data as shown below in the (new) row 6.

	A	B	C	D	E	F	G
6	Monster	8	1	100	27	92	

c. **STUDENT B:** Insert a row below row 10.

d. Enter the data as shown below in the (new) row 11.

	A	B	C	D	E	F	G
11	Full Throttle	8	2.5	220	58	210	

13. **STUDENT A:** Center align columns B and C.

14. **STUDENT B:** Center align columns D-F.

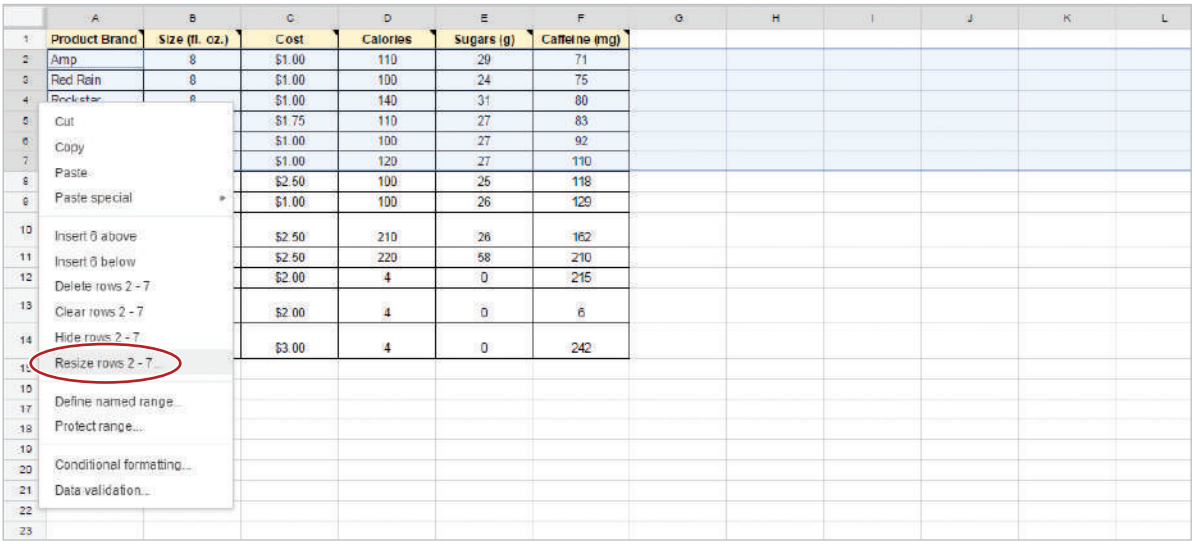
15. **STUDENT A:** Bold cells A1-F1 and change the fill color to light yellow 3.

16. **STUDENT B:** Add borders to cells A1-F14.

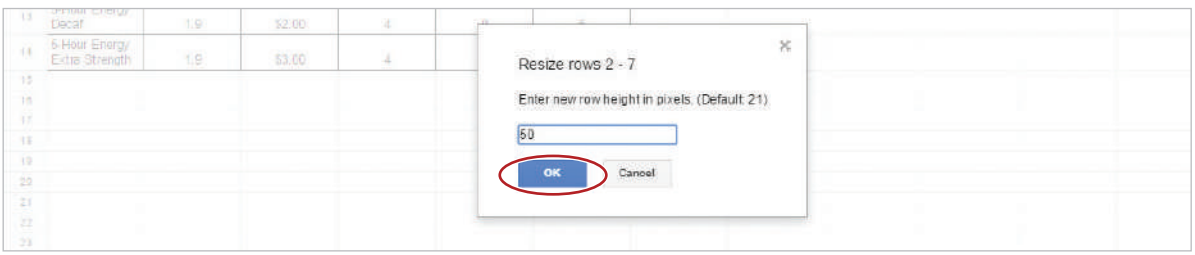
17. **STUDENT A:** Format column C as currency.

18. **Format Row Height.** To resize a row to a specific number of pixels, do the following:

a. **STUDENT A:** Select rows 2-7, right-click, then select **Resize rows 2-7**.



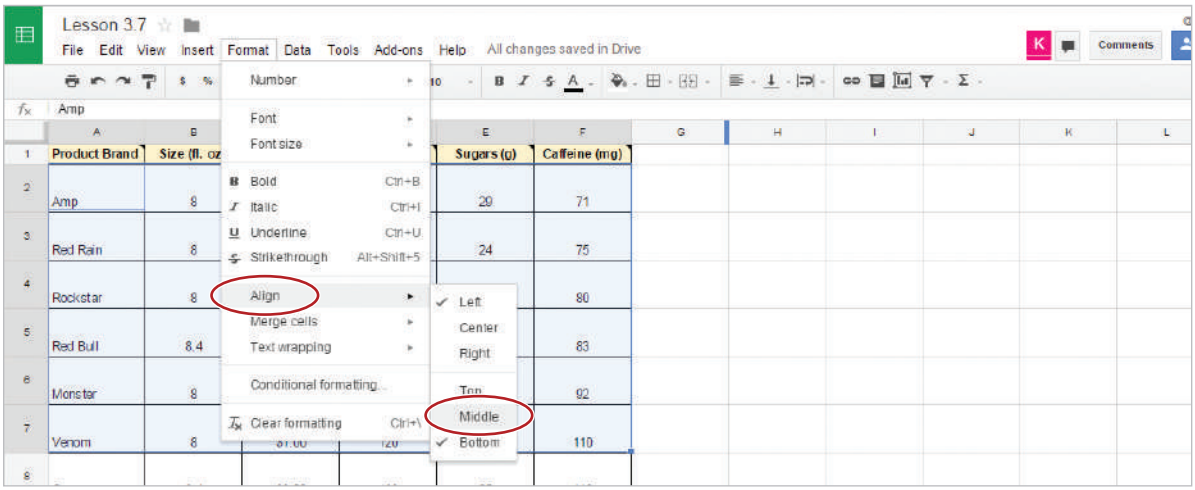
b. In the **Resize rows** dialog box, enter **50** for your new row height, then click **OK**.



c. **STUDENT B:** Select rows 8-14, right-click, then select Resize rows 8-14.

d. In the Resize rows dialog box, enter 50 for your new row height, then click OK.

19. **Align Text Vertically.** To vertically align text to the middle of a range of cells, select the cells, then from the **Format** menu, select **Align**, then select **Middle**.



20. **STUDENT A:** Change the vertical cell alignment of cells A2-F7 to middle.

21. **STUDENT B:** Change the vertical cell alignment of cells A8-F14 to middle.

22. Proofread your spreadsheet for accuracy and format.

23. Print preview and set your page to portrait orientation. Your spreadsheet should look similar to 3.7 Figure B.

24. Share or print your spreadsheet if required.

3.7 Figure A

	A	B	C	D	E	F	G
1	Product Brand	Size (fl. oz.)	Cost	Calories	Sugars (g)	Caffeine (mg)	
2	Amp	8	1	110	29	71	
3	Red Rain	8	1	100	24	75	
4	Rockstar	8	1	140	31	80	
5	Red Bull	8.4	1.75	110	27	83	
6	Venom	8	1	120	27	110	
7	Guru	8.4	2.5	100	25	118	
8	Arizona	8	1	100	26	129	
9	Starbucks Doubleshot	15	2.5	210	26	162	
10	5-Hour Energy	1.9	2	4	0	215	
11	5-Hour Energy Decaf	1.9	2	4	0	6	
12	5-Hour Energy Extra Strength	1.9	3	4	0	242	
13							

3.7 Figure B

Product Brand	Size (fl. oz.)	Cost	Calories	Sugars (g)	Caffeine (mg)
Amp	8	$1.00	110	29	71
Red Rain	8	$1.00	100	24	75
Rockstar	8	$1.00	140	31	80
Red Bull	8.4	$1.75	110	27	83
Monster	8	$1.00	100	27	92
Venom	8	$1.00	120	27	110
Guru	8.4	$2.50	100	25	118
Arizona	8	$1.00	100	26	129
Starbucks Doubleshot	15	$2.50	210	26	162
Full Throttle	8	$2.50	220	58	210
5-Hour Energy	1.9	$2.00	4	0	215
5-Hour Energy Decaf	1.9	$2.00	4	0	6
5-Hour Energy Extra Strength	1.9	$3.00	4	0	242