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Daniel John Stine AIA, CSI, CDT



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3.0 Manage Tables and Table Data



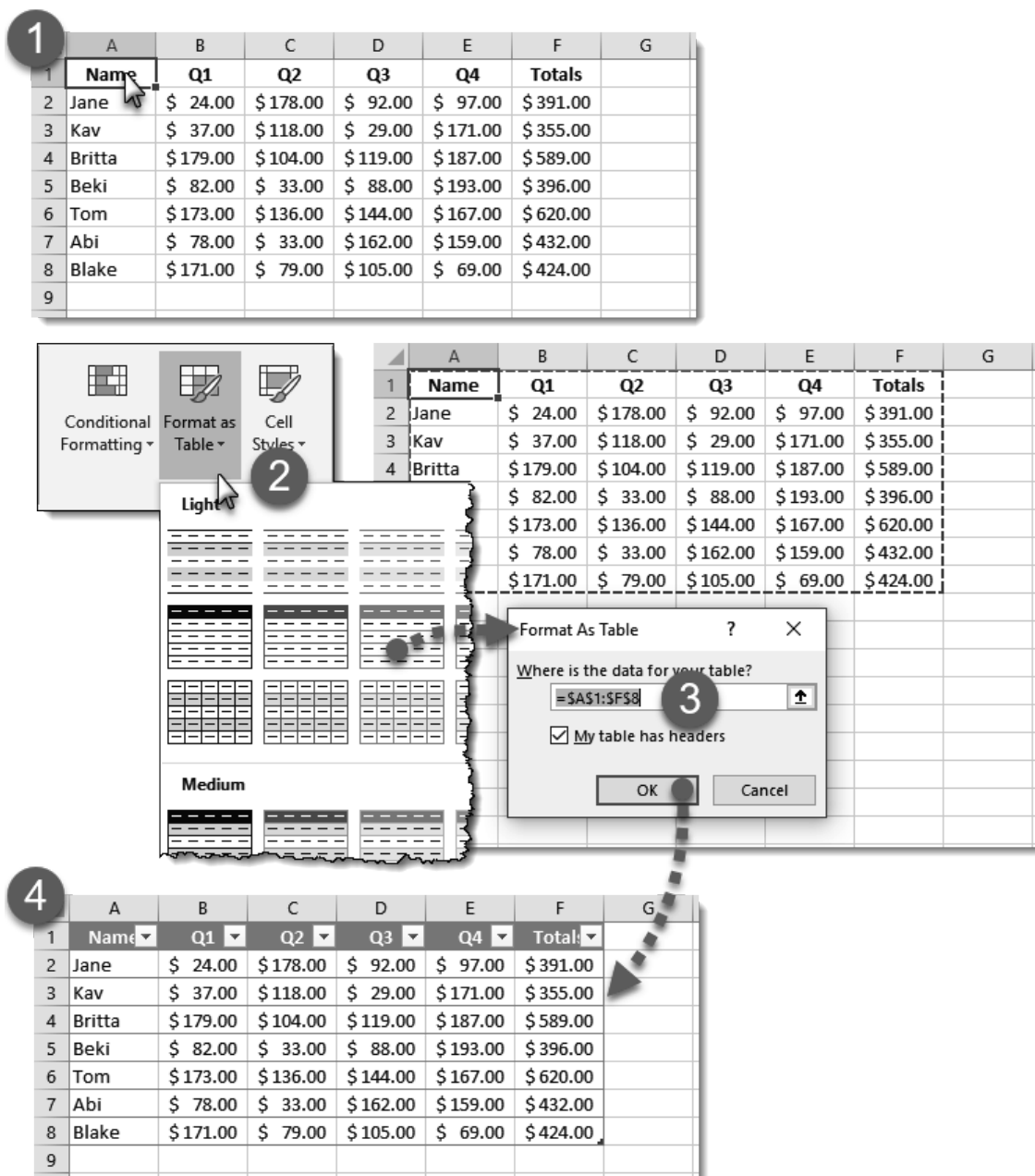
3.1.1 Create Excel tables from cell ranges

This objective requires one to know how to create a table from a range.

Create table from cell ranges

1. **Select** the upper left cell of area to be defined as a table
2. Click **Format as Table** → *any option*
3. Dialog: **Select range** directly in workbook, or type range; click **OK**
4. **Review** results

In the example below, row one contains header information (it is not part of the data) so **My table has headers** was left checked in step #3. The headers now contain special filter arrows.



1

	A	B	C	D	E	F	G
1	Name	Q1	Q2	Q3	Q4	Totals	
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00	
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00	
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00	
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00	
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00	
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00	
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00	
9							

2

Conditional Formatting | **Format as Table** | Cell Styles

Light

3

Format As Table

Where is the data for your table?

My table has headers

OK Cancel

4

	A	B	C	D	E	F	G
1	Name	Q1	Q2	Q3	Q4	Totals	
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00	
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00	
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00	
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00	
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00	
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00	
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00	
9							

Create table from selection

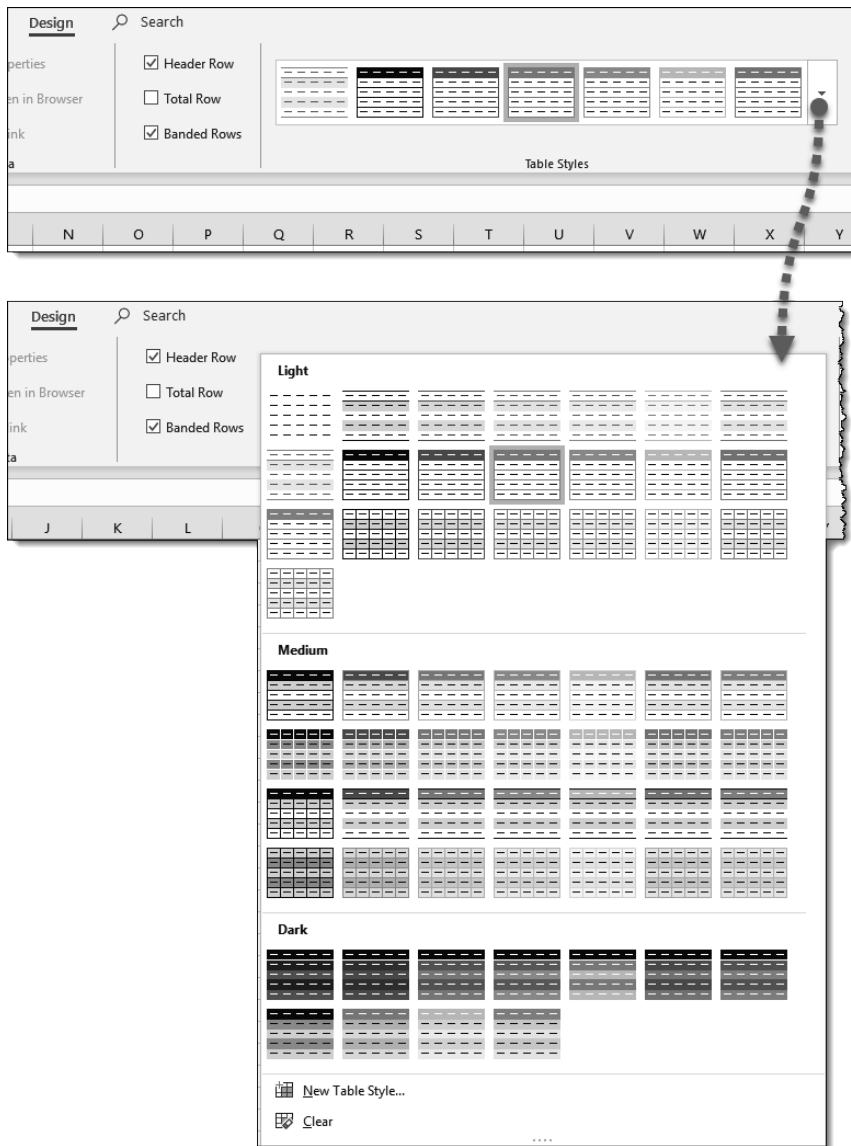
3.1.2 Apply table styles

The steps just given to create a table also applied a table style. This topic provides instruction on changing the current table style.

Apply or change a table style

1. **Select** anywhere within a table
2. Click **Table Design** → **Table Styles** list → *any option*

Hover cursor over an option to see the **style name** in a tooltip; the exam may specify a specific style to apply (notice the three groupings as well: Light, Medium and Dark).



Apply or change a table style

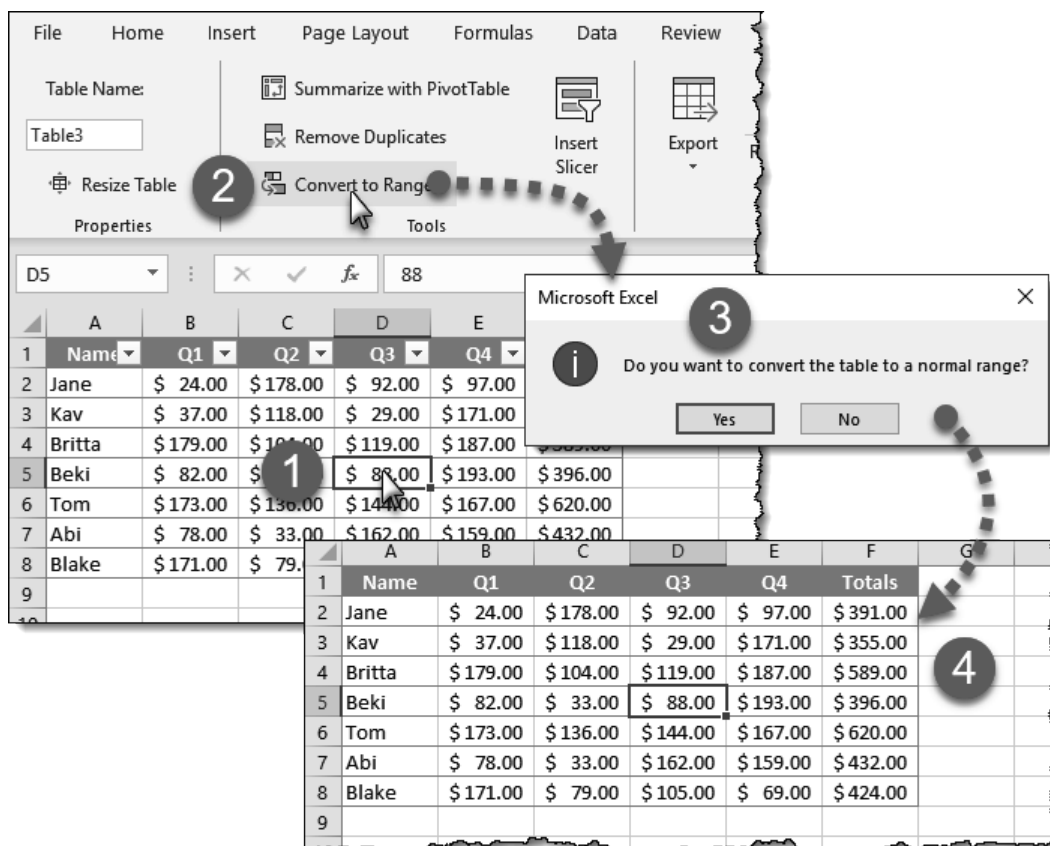
3.1.3 Convert tables to cell ranges

Sometimes it is necessary to change a table back into normal cells, which removes the table.

Convert table to cell range

1. **Select** anywhere within a table
2. Click **Table Design** → **Convert to Range**
3. Dialog: Click **OK** to convert entire table
4. **Review** results

The table no longer exists within the workbook. The data and formatting have been preserved.



The screenshot illustrates the steps to convert a table to a cell range in Microsoft Excel. It shows the 'Table Design' ribbon with the 'Convert to Range' button highlighted. A dialog box prompts the user to confirm the conversion. The resulting table is shown with a 'Totals' column added to the right of the original data.

1	Name	Q1	Q2	Q3	Q4	Totals
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00
9						

Convert table to cell range

3.2. Modify tables

Review the required objectives in this section on modifying tables in a workbook.

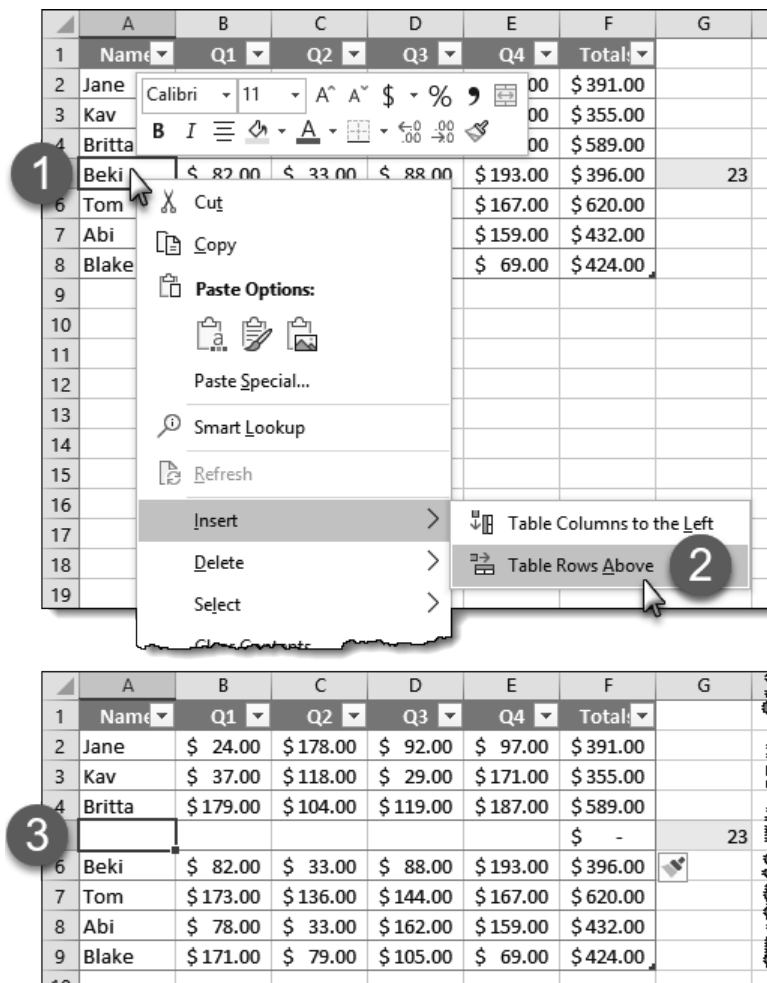
3.2.1 Add or remove table rows and columns

Review how to insert or delete a row or column in an existing table.

Add table row or column

1. **Select** a cell(s) within a table; *row will be inserted above*
2. **Right-click** and select **Insert** → **Table Rows Above**
3. **Review** results

Steps are similar for columns; in step #2 select **Table Columns to the Left**. In the example below, notice data outside the table (e.g. the number 23) did not shift.



The first screenshot shows a table with columns A through F and rows 1 through 9. A context menu is open over cell B5, with the 'Insert' option selected, and 'Table Rows Above' chosen. A red circle '1' is next to the selected cell, and a red circle '2' is next to the 'Table Rows Above' option.

The second screenshot shows the result after inserting a row. The table now has 10 rows. A new row (row 5) has been inserted above the original row 5. The data in the original row 5 (Beki) has shifted down one row. A red circle '3' is next to the new row 5.

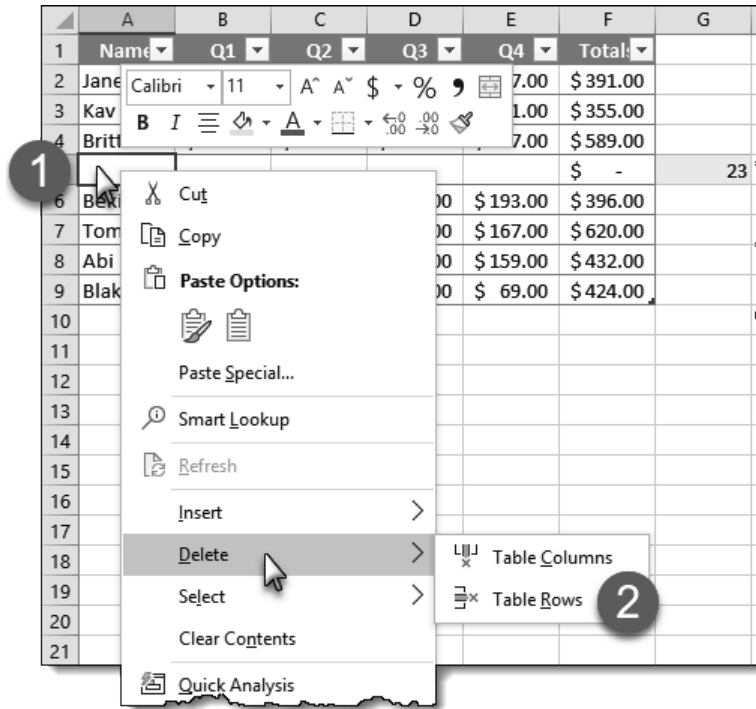
	A	B	C	D	E	F	G
1	Name	Q1	Q2	Q3	Q4	Total	
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00	
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00	
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00	
5						\$ -	23
6	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00	
7	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00	
8	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00	
9	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00	

Insert row into table

Delete table row or column

1. Select a cell(s) within a table
2. **Right-click** and select **Delete** → **Table Rows**
3. **Review** results

Steps are similar for removing columns; in step #2 select **Table Columns**. In the example below, notice data outside the table (e.g. the number 23) did not shift.



The screenshot shows the Excel spreadsheet after deleting the row for 'Beki'. The table now has 8 rows. A circled '3' is next to the table.

	A	B	C	D	E	F	G
1	Name	Q1	Q2	Q3	Q4	Total	
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00	
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00	
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00	
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00	23
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00	
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00	
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00	

Delete a table row

3.2.2 Configure table style options

Tables have several built-in table style options to control how the table appears. These items may be toggled on and off without losing any data.

Toggle table style options

1. **Select** anywhere within a table
2. Select the **Table Design** tab on the Ribbon; *a table must be selected to see this tab*
3. **Check** or **uncheck** the options in the **Table Style Options** panel

<input checked="" type="checkbox"/> Header Row	<input type="checkbox"/> First Column	<input checked="" type="checkbox"/> Filter Button
<input type="checkbox"/> Total Row	<input type="checkbox"/> Last Column	
<input checked="" type="checkbox"/> Banded Rows	<input type="checkbox"/> Banded Columns	
Table Style Options		

Table style options on Design tab (table must be selected first)

The image below compares the same table with no **Table Style Options** applied (top) and with all options selected (bottom). Many variations are possible by selecting different combinations of options.

	A	B	C	D	E	F	
1							
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00	
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00	
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00	
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00	
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00	
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00	
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00	
9							
10							

	A	B	C	D	E	F	
1	Name ▾	Q1 ▾	Q2 ▾	Q3 ▾	Q4 ▾	Totals ▾	
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00	
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00	
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00	
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00	
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00	
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00	
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00	
9	Total					\$ 3,207.00	
10							

Compare table style options; no options v. all options applied

3.2.3 Insert and configure total rows

Inserting row totals, in a table, is part of the table style options that deserves special attention.

Insert table total row

1. **Select** anywhere within a table
2. Select the **Table Design** tab on the Ribbon; *a table must be selected to see this tab*
3. Check the **Total Row** option on the Table Style Options panel

A new row is added to the bottom of the table as shown in the example below, listing a total.

1	Name	Q1	Q2	Q3	Q4	Totals
2	Jane	\$ 24.00	\$ 178.00	\$ 92.00	\$ 97.00	\$ 391.00
3	Kav	\$ 37.00	\$ 118.00	\$ 29.00	\$ 171.00	\$ 355.00
4	Britta	\$ 179.00	\$ 104.00	\$ 119.00	\$ 187.00	\$ 589.00
5	Beki	\$ 82.00	\$ 33.00	\$ 88.00	\$ 193.00	\$ 396.00
6	Tom	\$ 173.00	\$ 136.00	\$ 144.00	\$ 167.00	\$ 620.00
7	Abi	\$ 78.00	\$ 33.00	\$ 162.00	\$ 159.00	\$ 432.00
8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00
9	Total					\$ 3,207.00

Insert total rows in a table

Optional step: Once a table Total Row is added, click at the bottom of each column (#4) to apply a function, such as sum, max, min, etc. (#5) to the column as shown in the image below.

8	Blake	\$ 171.00	\$ 79.00	\$ 105.00	\$ 69.00	\$ 424.00
9	Total	\$ 744.00				\$ 3,207.00

Configure a table total row

3.3. Filter and sort table data

Tables can be quickly sorted and filtered to look at relevant data.

3.3.1 Filter records

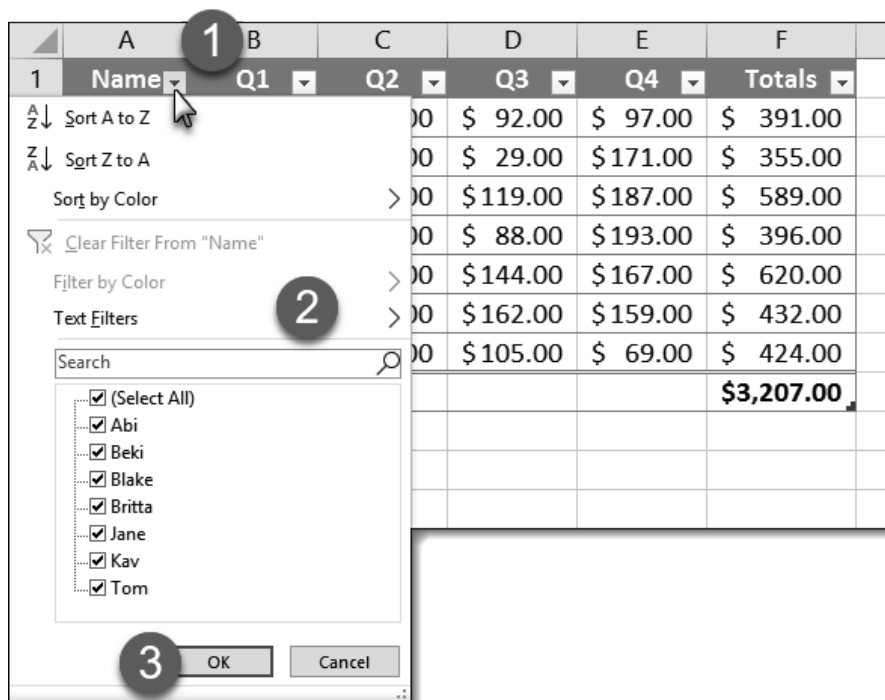
When a table has the Header Row and Filter Button (turned on via Table Style Options) filtering data is very simple.

Filter records

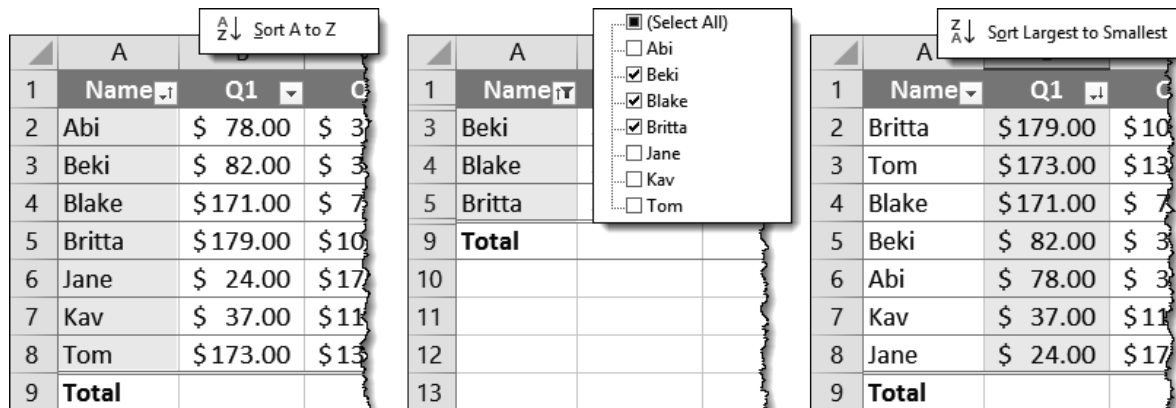
1. Click a filter arrow in the header row.
2. Select a filter option(s).
3. Click **OK**.

Unlike sorting a regular column, the entire table is automatically sorted to maintain data integrity.

The image below compares the same table sorted/filtered three different ways.



Click column arrow to view filter options



Compare various filter results

3.3.2 Sort data by multiple columns

Tables may be sorted by more than one column in Excel.

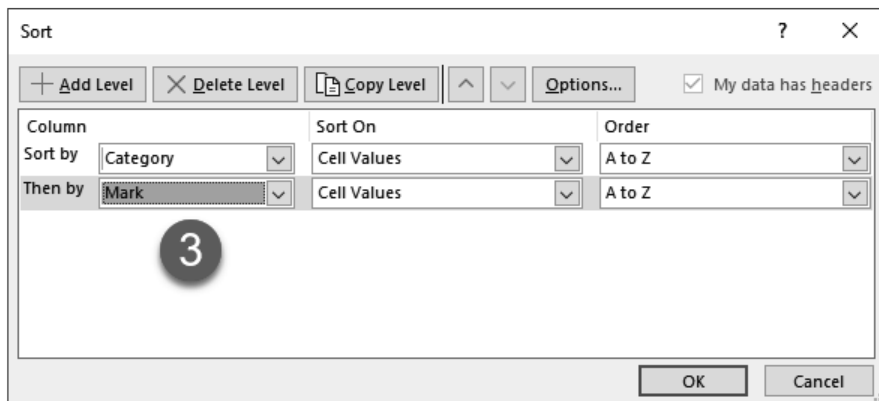
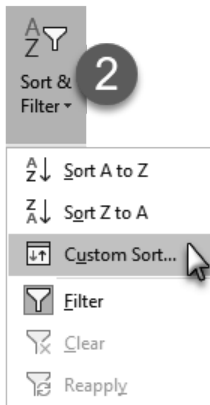
In the example below, there are multiple categories with the same name, and they are further defined by the Mark category. Thus, we will sort by the Categories column and then the Mark column; e.g. seating will self-sort for Mark.

Sort data by multiple columns

1. Click anywhere within a table
2. Select **Home** → **Sort & Filter** → **Custom Sort...**
3. In the Sort dialog:
 - a. Click the **Add Level** button
 - b. Set the first ‘Sort by’ row to **Category**
 - c. Set the second ‘Sort by’ row to **Mark**
 - d. Click **OK**
4. Review the results

	A	B	L
1	Category	Mark	Total
2	Lighting	LT1	\$568.10
3	Seating	CH1	\$12,569.70
4	Specialty Equipment	SP1	\$524.70
5	Specialty Equipment	SP2	\$999.90
6	Specialty Equipment	SP3	\$1,316.70
7	Specialty Equipment	SP4	\$480.15
8	Seating	CH1a	\$1,442.10
9	Seating	CH1b	\$22,447.92
10	Seating	CH4	\$13,203.96
11	Seating	CH5	\$2,646.60
12	Seating	CH6	\$6,547.20
13	Seating	CH7	\$10,890.00
14	Seating	CH8	\$8,162.88
15	Reception Desk	RECPT	\$17,424.00
16	Tables	TBL8	\$1,623.60
17	Tables	TBL1	\$6,560.40
18	Tables	TBL2a	\$557.70
19	Tables	TBL2b	\$4,474.80
20	Seating	CH2	\$25,030.50
21	Seating	CH3	\$73,756.32
22	Tables	TBL3	\$1,624.26
23	Tables	TBL4b	\$3,049.20

	A	B	L
1	Category	Mark	Total
2	Lighting	LT1	\$568.10
3	Reception Desk	RECPT	\$17,424.00
4	Seating	CH1	\$12,569.70
5	Seating	CH1a	\$1,442.10
6	Seating	CH1b	\$22,447.92
7	Seating	CH2	\$25,030.50
8	Seating	CH3	\$73,756.32
9	Seating	CH4	\$13,203.96
10	Seating	CH5	\$2,646.60
11	Seating	CH6	\$6,547.20
12	Seating	CH7	\$10,890.00
13	Seating	CH8	\$8,162.88
14	Specialty Equipment	SP1	\$524.70
15	Specialty Equipment	SP2	\$999.90
16	Specialty Equipment	SP3	\$1,316.70
17	Specialty Equipment	SP4	\$480.15
18	Tables	TBL1	\$6,560.40
19	Tables	TBL2a	\$557.70
20	Tables	TBL2b	\$4,474.80
21	Tables	TBL3	\$1,624.26
22	Tables	TBL4b	\$3,049.20
23	Tables	TBL8	\$1,623.60



Sort data by multiple columns in table

3.0 Practice Tasks

Try the topics covered in this chapter to make sure you understand the concepts. These tasks are sequential and should be completed in the same Excel workbook unless noted otherwise. Saving the results is optional, unless assigned by an instructor.

Task 3.1:

- ✓ Open Quarterly Sales Report by Associate.xlsx, and then **create a table** based on the following range: A2:F9. Use the following style: Orange, Table Style Light 10.

Task 3.2

- ✓ **Insert** a new table row above Abi.

Task 3.3

- ✓ Add a **Total Row** using Table Style Options.

Task 3.4:

- ✓ Toggle on the **First Column** setting via Table Style Options.

Task 3.5:

- ✓ **Sort** the table by first name, alphabetically.

	A	B	C	D	E	F	G
1	Quarterly Sales Report by Associate						
2	Column1	Q1	Q2	Q3	Q4	Column2	
3	Abi	78	33	162	159		
4	Beki	82	33	88	193		
5	Blake	167	79	105	73		
6	Britta	167	104	119	185		
7	Jane	23	178	92	96		
8	Kav	37	120	31	171		
9	Tom	145	125	133	166		
10							
11	Total					0	
12							
13							