Basic Tips for Working with Data

❖ Introduction

Excel workbooks are designed to store a lot of information. Whether you are working with 20 cells or 20,000, Excel has several features to help you **organize your data** and **find what you need**. You can see some of the most useful features below. In addition, be sure to review the other lessons in this tutorial to get step-by-step instructions for each of these features. **Several tools that make it easier to view content from different parts of your workbook at the same time:**

1. Freezing data
2. Sorting data
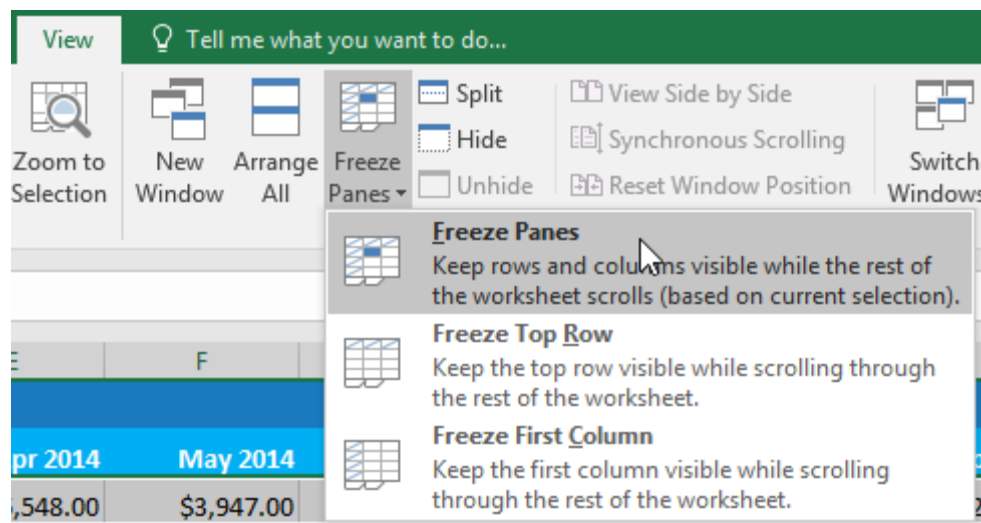3. Filtering data

1. Freezing data

A. To freeze rows:

You may want to see certain rows or columns all the time in your worksheet, especially **header cells**. By **freezing** rows or columns in place, you will be able to scroll through your content while continuing to view the frozen cells.

1. Select the **row** below the row(s) you want to **freeze**. In our example, we want to freeze rows **1** and **2**, so we will select row **3**.

2. On the **View** tab, select the **Freeze Panes** command, then choose **Freeze Panes** from the drop-down menu.

3. The rows will be **frozen** in place, as indicated by the **gray line**. You can **scroll down** the worksheet while continuing to view the frozen rows at the top. In our example, we have scrolled down to row **18**.

B. To freeze columns:

1. Select the **column** to the right of the column(s) you want to **freeze**. In our example, we want to freeze **column A**, so we will select column **B**.

|	A	B	C	D	E	F
1	2014-2015 Sales Data					
2	Salesperson	Jan 2014	Feb 2014	Mar 2014	Apr 2014	May 2014
3	Albertson, Kathy	$3,799.00	$4,162.00	$10,491.00	$6,548.00	$3,947.00
4	Allenson, Carol	$18,930.00	$3,993.00	$9,133.00	$19,845.00	$4,411.00
5	Altman, Zoey	$5,725.00	$4,848.00	$8,741.00	$11,138.00	$2,521.00
6	Bittiman, William	$1,344.00	$3,693.00	$15,346.00	$17,253.00	$4,752.00

2. On the **View** tab, select the **Freeze Panes** command, then choose **Freeze Panes** from the drop-down menu.
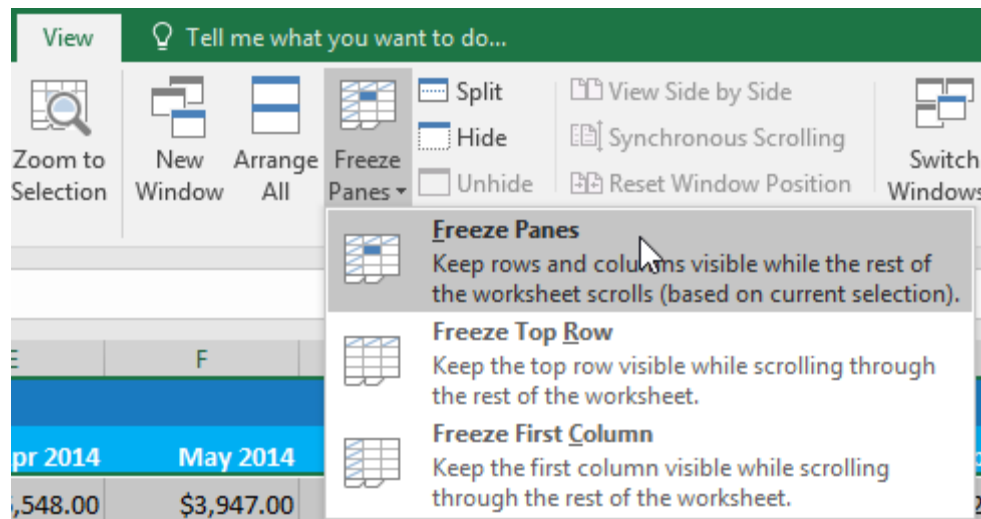
3. The column will be **frozen** in place, as indicated by the **gray line**. You can **scroll across** the worksheet while continuing to view the frozen column on the left. In our example, we have scrolled across to column **E**.

If you only need to freeze the **top row** (row 1) or **first column** (column A) in the worksheet, you can simply select **Freeze Top Row** or **Freeze First Column** from the drop-down menu.
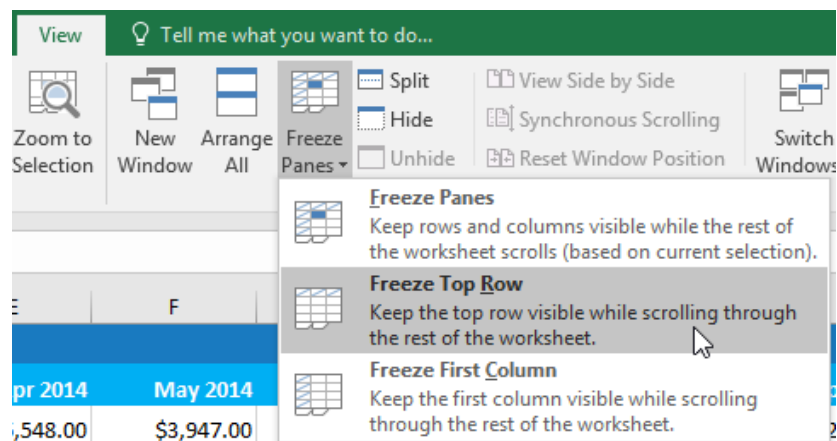
C. To unfreeze panes:

If you want to select a different view option, you may first need to reset the spreadsheet by unfreezing panes. To **unfreeze** rows or columns, click the **Freeze Panes** command, then select **Unfreeze Panes** from the drop-down menu.
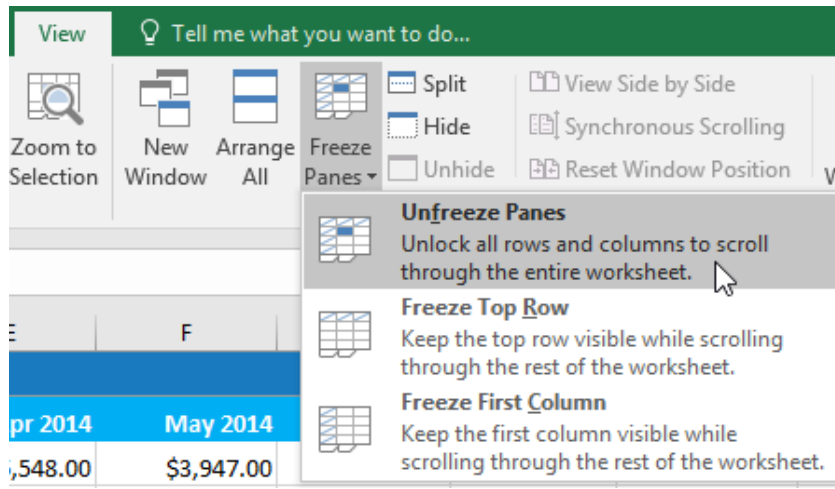
2. Sorting data

Add more content to a worksheet, organizing this information becomes especially important. You can quickly **reorganize** a worksheet by **sorting** your data. For example, you can organize a list of contact information by last name. Content can be sorted alphabetically, numerically, and in several other ways.

- **Sort range** sorts the data in a range of cells, which can be helpful when working with a sheet that contains several tables. Sorting a range will not affect other content in the worksheet.

A. To sort a sheet:

In our example, we will sort a T-shirt order form alphabetically by **Last Name** (column **C**).

1. Select a **cell** in the column you want to sort. In our example, we will select cell **C2**.

2. Select the **Data** tab on the **Ribbon**, then click the **A-Z command** to sort A to Z, or the **Z-A command** to sort Z to A. In our example, we will sort A to Z.
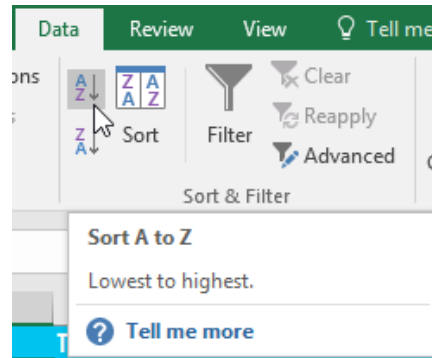
3. The worksheet will be **sorted** by the selected column. In our example, the worksheet is now sorted by **last name**.

	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	110	Kris	Ackerman	Large	Money Order
3	105	Nathan	Albee	Medium	Check
4	220-B	Samantha	Bell	Medium	Check
5	110	Matt	Benson	Medium	Money Order
6	105	Christiana	Chen	Medium	Check Bounced
7	110	Gabriel	Del Toro	Medium	Cash
8	220-A	Brigid	Ellison	Small	Cash
9	220-A	Juan	Flores	X-Large	Pending

B. To sort a range:

In our example, we will select a **separate table** in our T-shirt order form to sort the number of shirts that were ordered in each grade.

1. Select the **cell range** you want to sort. In our example, we will select cell range **G2:H6**.

2. Select the **Data** tab on the **Ribbon**, then click the **Sort** command.
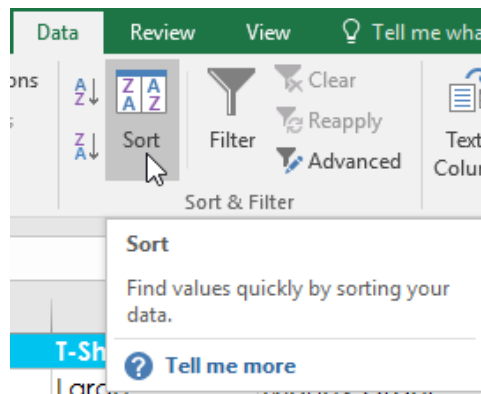
3. The **Sort** dialog box will appear. Choose the **column** you want to sort. In our example, we want to sort the data by the number of T-shirt orders, so we will select **Orders**.
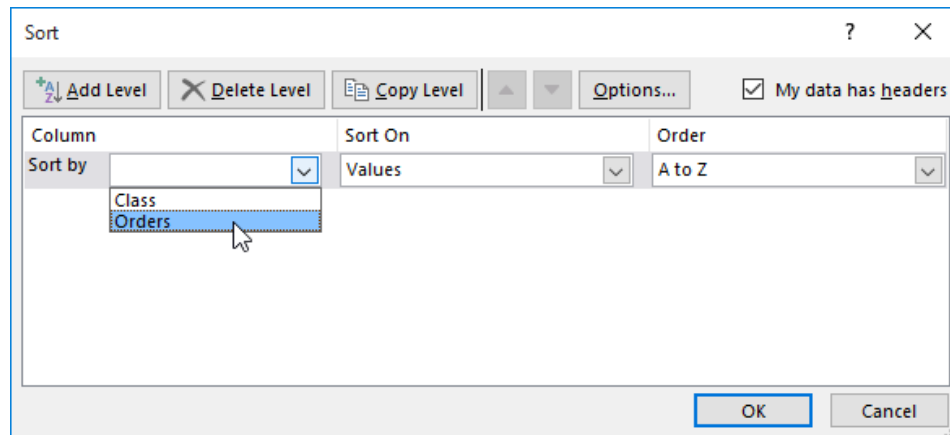
4. Decide the **sorting order** (either ascending or descending). In our example, we will use **Largest to Smallest**.

5. Once you are satisfied with your selection, click **OK**.
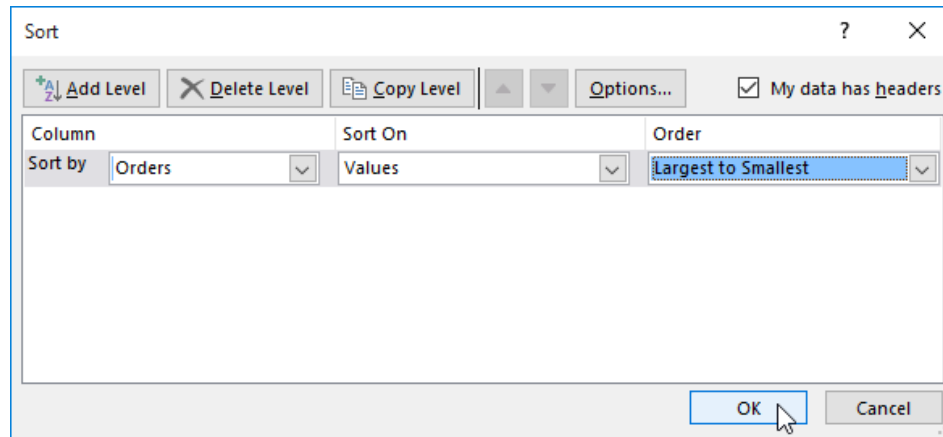
6. The cell range will be **sorted** by the selected column. In our example, the Orders column will be sorted from **highest to lowest**. Notice that the other content in the worksheet was not affected by the sort.

If your data is not sorting properly, double-check your cell values to make sure they are entered into the worksheet correctly. Even a small typo could cause problems when sorting a large worksheet. In the example below, we forgot to include a hyphen in cell A18, causing our sort to be slightly inaccurate.

C. Custom sorting

Sometimes you may find that the default sorting options cannot sort data in the order you need. Fortunately, Excel allows you to create a **custom list** to define your own sorting order.

To create a custom sort:

In our example, we want to sort the worksheet by **T-Shirt Size** (column **D**). A regular sort would organize the sizes alphabetically, which would be incorrect. Instead, we will create a custom list to sort from smallest to largest.

1. Select a **cell** in the column you want to sort. In our example, we will select cell **D2**.

	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	110	Kris	Ackerman	Large	Money Order
3	105	Nathan	Albee	Medium	Check
4	220-B	Samantha	Bell	Medium	Check
5	110	Matt	Benson	Medium	Money Order
6	105	Christiana	Chen	Medium	Check Bounced
7	110	Gabriel	Del Toro	Medium	Cash
8	220-A	Brigid	Ellison	Small	Cash
9	220-A	Juan	Flores	X-Large	Pending
10	220-B	Tyrese	Hanlon	X-Large	Debit Card

2. Select the **Data** tab, then click the **Sort** command.
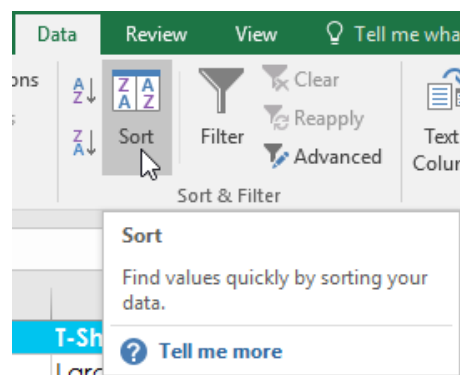
3. The **Sort** dialog box will appear. Select the **column** you want to sort, and then choose **Custom List...** from the **Order** field. In our example, we will choose to sort by **T-Shirt Size**.
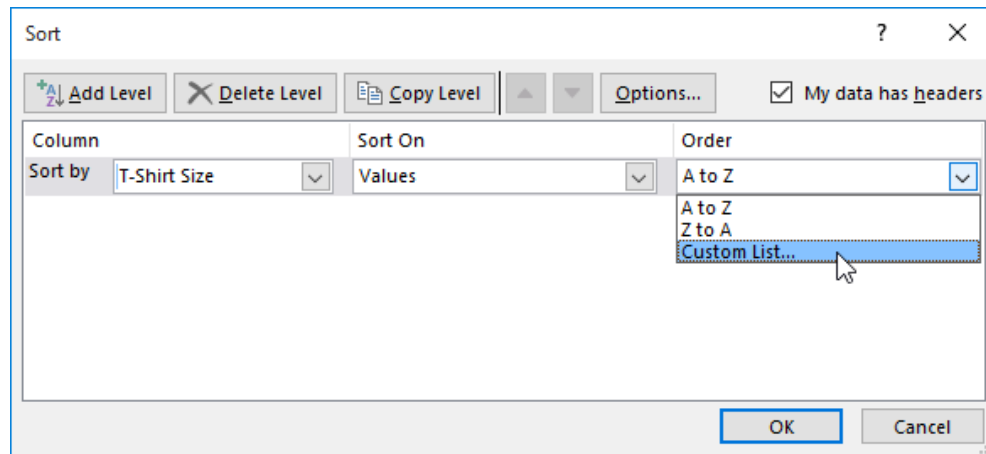
4. The **Custom Lists** dialog box will appear. Select **NEW LIST** from the **Custom Lists:** box.

5. Type the items in the desired custom order in the **List entries:** box. In our example, we want to sort our data by T-shirt size from **smallest** to **largest**, so we will type **Small**, **Medium**, **Large**, and **X-Large**, pressing **Enter** on the keyboard after each item.
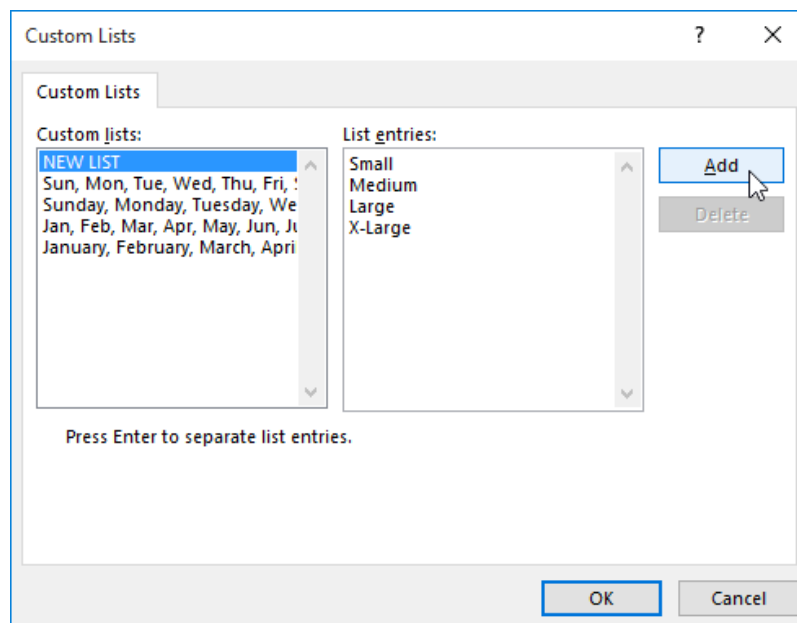
6. Click **Add** to save the new sort order. The new list will be added to the **Custom lists:** box. Make sure the new list is **selected**, then click **OK**.
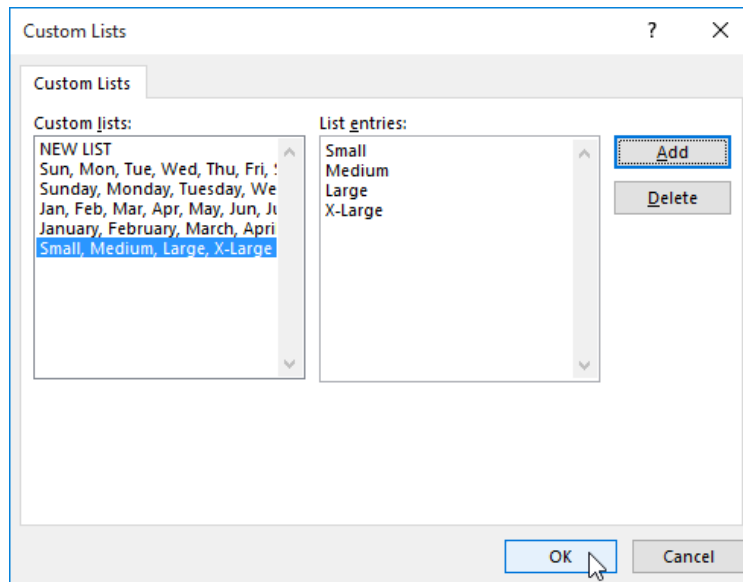
7. The **Custom Lists** dialog box will close. Click **OK** in the **Sort** dialog box to perform the custom sort.
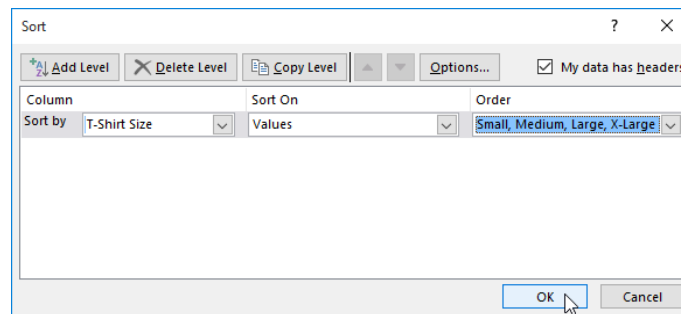
8. The worksheet will be **sorted** by the custom order. In our example, the worksheet is now organized by T-shirt size from smallest to largest.

	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	220-A	Brigid	Ellison	Small	Cash
3	220-B	Michael	Lazar	Small	Cash
4	135	Anisa	Naser	Small	Check Bounced
5	220-A	Christopher	Peyton-Gomez	Small	Check
6	220-B	Malik	Reynolds	Small	Cash
7	220-B	Wendy	Shaw	Small	Cash
8	105	Melissa	White	Small	Debit Card
9	105	Esther	Yaron	Small	Pending
10	105	Nathan	Albee	Medium	Check
11	220-B	Samantha	Bell	Medium	Check
12	110	Matt	Benson	Medium	Money Order
13	105	Christiana	Chen	Medium	Check Bounced
14	110	Gabriel	Del Toro	Medium	Cash
15	105	Sidney	Kelly	Medium	Check
16	220-B	Avery	Kelly	Medium	Debit Card
17	220-A	Chevonne	Means	Medium	Money Order
18	135	James	Panarello	Medium	Check
19	135	Chantal	Weller	Medium	Debit Card
20	110	Kris	Ackerman	Large	Money Order
21	105	Derek	MacDonald	Large	Cash

D. Sorting levels

If you need more control over how your data is sorted, you can add multiple **levels** to any sort. This allows you to sort your data by **more than one column**.

To add a level:

In our example below, we'll sort the worksheet by **T-Shirt Size** (Column **D**), then by **Homeroom #** (column **A**).

1. Select a **cell** in the column you want to sort. In our example, we'll select cell **A2**.

|	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	220-A	Brigid	Ellison	Small	Cash
3	220-B	Michael	Lazar	Small	Cash
4	135	Anisa	Naser	Small	Check Bounced
5	220-A	Christopher	Peyton-Gomez	Small	Check
6	220-B	Malik	Reynolds	Small	Cash
7	220-B	Wendy	Shaw	Small	Cash
8	105	Melissa	White	Small	Debit Card
9	105	Esther	Yaron	Small	Pending
10	105	Nathan	Albee	Medium	Check

2. Click the **Data** tab, then select the **Sort** command.
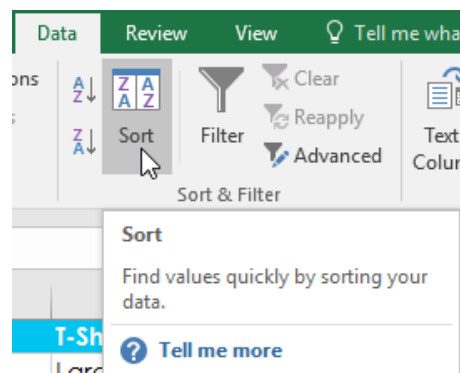
3. The **Sort** dialog box will appear. Select the first column you want to sort. In this example, we will sort by **T-Shirt Size** (column **D**) with the custom list we previously created for the Order field.

4. Click **Add Level** to add another column to sort.
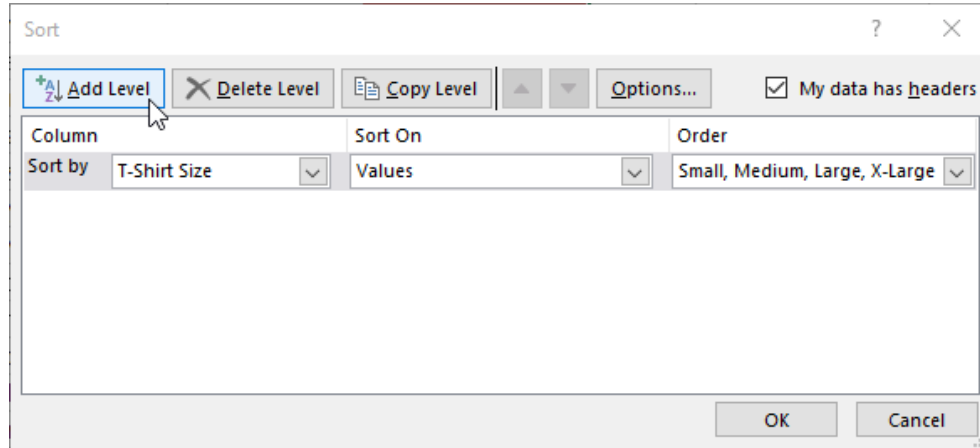
5. Select the next column you want to sort, then click **OK**. In our example, we'll sort by **Homeroom #** (column **A**).
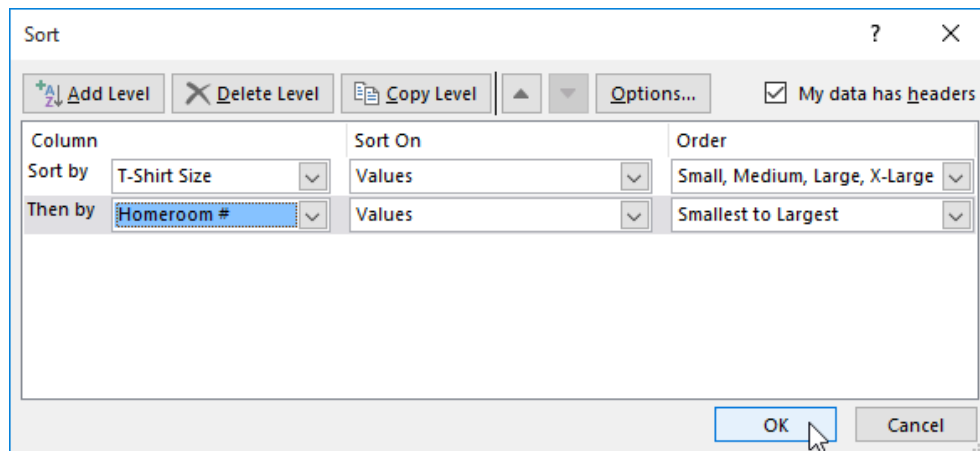
6. The worksheet will be **sorted** according to the selected order. In our example, the orders are sorted by T-shirt size. Within each group of T-shirt sizes, students are sorted by homeroom number.

	A	B	C	D	E
1	Homeroom #	First Name	Last Name	T-Shirt Size	Payment Method
2	105	Melissa	White	Small	Debit Card
3	105	Esther	Yaron	Small	Pending
4	135	Anisa	Naser	Small	Check Bounced
5	220-A	Brigid	Ellison	Small	Cash
6	220-A	Christopher	Peyton-Gomez	Small	Check
7	220-B	Michael	Lazar	Small	Cash
8	220-B	Malik	Reynolds	Small	Cash
9	220-B	Wendy	Shaw	Small	Cash
10	105	Nathan	Albee	Medium	Check
11	105	Christiana	Chen	Medium	Check Bounced
12	105	Sidney	Kelly	Medium	Check
13	110	Matt	Benson	Medium	Money Order
14	110	Gabriel	Del Toro	Medium	Cash
15	135	James	Panarello	Medium	Check
16	135	Chantal	Weller	Medium	Debit Card
17	220-A	Chevonne	Means	Medium	Money Order
18	220-B	Samantha	Bell	Medium	Check
19	220-B	Avery	Kelly	Medium	Debit Card
20	105	Derek	MacDonald	Large	Cash
21	110	Kris	Ackerman	Large	Money Order

If you need to change the order of a multilevel sort, it is easy to control which column is sorted first. Simply select the desired **column**, and then click the **Move Up** or **Move Down** arrow to adjust its priority.
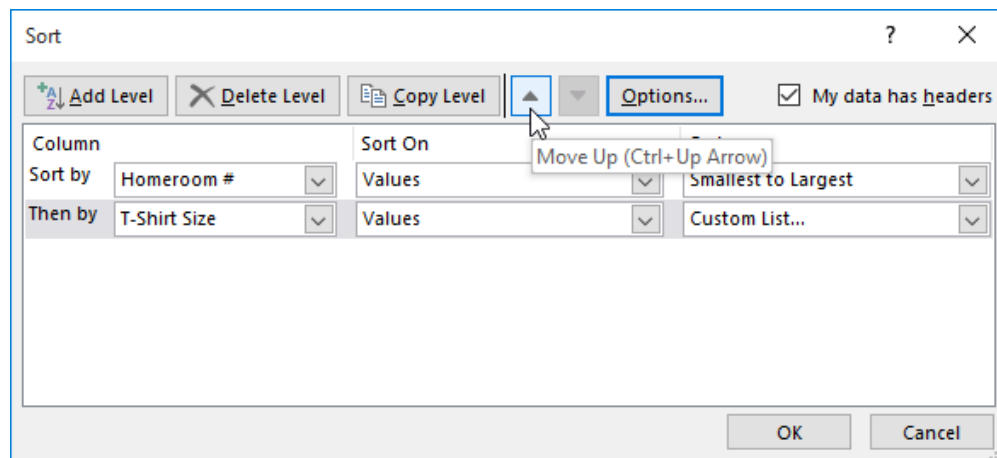
3. Filtering data

If your worksheet contains a lot of content, it can be difficult to find information quickly. **Filters** can be used to **narrow down** the data in your worksheet, allowing you to view only the information you need.

A. To filter data:

In our example, we will apply a filter to an equipment log worksheet to display only the laptops and projectors that are available for checkout.

1. In order for filtering to work correctly, your worksheet should include a **header row**, which is used to identify the name of each column. In our example, our worksheet is organized into different columns identified by the header cells in row.

2. 1: **ID#**, **Type**, **Equipment Detail**, and so on.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
2	3000	Camera	Saris Lumina Digital Camera	12-May-15	15-May-15	Shannon Nguyen
3	3005	Camera	Saris Zoom Z-60 Digital Camera	27-Jul-15	06-Aug-15	Sela Shepard
4	1021	Laptop	15" EDI SmartPad L200-3 Laptop	15-Sep-15	01-Oct-15	Sofie Ragnar
5	1022	Laptop	15" EDI SmartPad L200-3 Laptop	14-Aug-15	16-Aug-15	Hank Sorenson
6	1023	Laptop	15" EDI SmartPad L200-3 Laptop	08-Aug-15	15-Aug-15	Jennifer Weiss
7	3070	Camera	Omega PixL Digital Camcorder	06-Oct-15		Min Seung
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-15	04-Oct-15	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-15		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-15		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-15	26-Sep-15	George D'Agosta

3. Select the **Data** tab, then click the **Filter** command.

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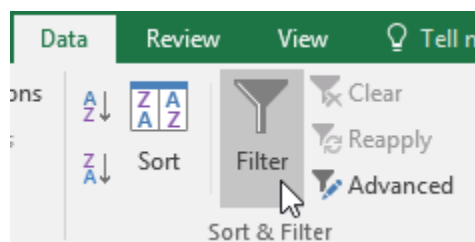
4. A **drop-down arrow** will appear in the header cell for each column.

5. Click the **drop-down arrow** for the column you want to filter. In our example, we will filter column **B** to view only certain types of equipment.

	A	B	C
1	ID #	Type	Equipment Detail
2	3000	Camera	Saris Lumina Digital Camer
3	3005	Camera	om Z-60 Digital Ca
4	1021	Laptop	15" EDI SmartPad L200-3
5	1022	Laptop	15" EDI SmartPad L200-3
6	1023	Laptop	15" EDI SmartPad L200-3

6. The **Filter menu** will appear.

7. **Uncheck** the box next to **Select All** to quickly deselect all data.

	A	B	C
1	ID #	Type	Equipment Detail

Sort A to Z
Sort Z to A
Sort by Color ▸
Clear Filter From "Type"
Filter by Color ▸
Text Filters ▸
Search 🔍
☑ (Select All)
☑ Camera
☑ Laptop
☑ Other
☑ Projector
☑ Tablet
☑ TV

na Digital Camera
n Z-60 Digital Camera
martPad L200-3 Laptop
martPad L200-3 Laptop
martPad L200-3 Laptop
xL Digital Camcorder
martPad L200-4X
K-10 Laptop
K-10 Laptop
K-10 Laptop
K-10 Laptop
Board L500-1
Board L500-1
s DigiCam Printer II
s Label Maker
Camera Travel Bag
olling Laptop Case
Rolling Laptop Case

OK   Cancel

20 | 6100 | Projector | Omega VisX 1.0

8. **Check** the boxes next to the data you want to filter, then click **OK**. In this example, we will check **Laptop** and **Projector** to view only these types of equipment.

9. The data will be **filtered**, temporarily hiding any content that does not match the criteria. In our example, only laptops and projectors are visible.

|	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
4	1021	Laptop	15" EDI SmartPad L200-3 Laptop	15-Sep-15	01-Oct-15	Sofie Ragnar
5	1022	Laptop	15" EDI SmartPad L200-3 Laptop	14-Aug-15	16-Aug-15	Hank Sorenson
6	1023	Laptop	15" EDI SmartPad L200-3 Laptop	08-Aug-15	15-Aug-15	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-15	04-Oct-15	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-15		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-15		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-15	26-Sep-15	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-15	27-Aug-15	Jay Peralta
20	6100	Projector	Omega VisX 1.0	28-Sep-15	01-Oct-15	Win Armitage
21	6101	Projector	Omega VisX 1.0	26-Sep-15	27-Sep-15	Michael Earley
22	6102	Projector	Omega VisX 1.0	22-Aug-15	23-Aug-15	Jamila Kyle
23	6200	Projector	Saris Lux T-80	01-Sep-15	04-Sep-15	Jolie Chaturvedi
24	6301	Projector	Saris Lux T-81 Lite	10-Sep-15		Marques Herndon
25	6302	Projector	Saris Lux T-81 Lite	08-Sep-15	15-Sep-15	Dean Sorenson
31						
32						

Filtering options can also be accessed from the **Sort & Filter** command on the **Home** tab.
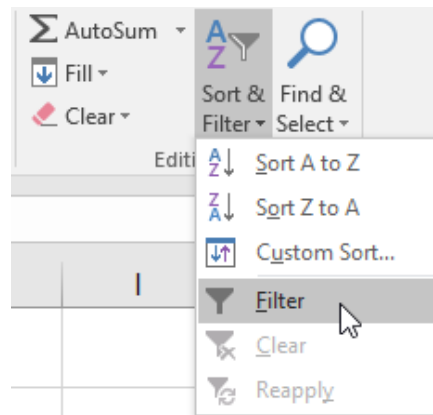

B.   To apply multiple filters:

Filters are **cumulative**, which means you can apply **multiple filters** to help narrow down your results. In this example, we have already filtered our worksheet to show laptops and projectors, and we would like to narrow it down further to only show laptops and projectors that were checked out in August.

1. Click the **drop-down arrow** for the column you want to filter. In this example, we will add a filter to column **D** to view information by date.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
4	1021	Laptop	15" EDI SmartPad L200-3 Laptop	15-Sep-15	01-Oct-15	Sofie Ragnar
5	1022	Laptop	15" EDI SmartPad L200-3 Laptop	14-Aug-15	15	Hank Sorenson
6	1023	Laptop	15" EDI SmartPad L200-3 Laptop	08-Aug-15	15-Aug-15	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-15	04-Oct-15	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-15		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-15		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-15	26-Sep-15	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-15	27-Aug-15	Jay Peralta
20	6100	Projector	Omega VisX 1.0	28-Sep-15	01-Oct-15	Win Armitage
21	6101	Projector	Omega VisX 1.0	26-Sep-15	27-Sep-15	Michael Earley
22	6102	Projector	Omega VisX 1.0	22-Aug-15	23-Aug-15	Jamila Kyle
23	6200	Projector	Saris Lux T-80	01-Sep-15	04-Sep-15	Jolie Chaturvedi
24	6301	Projector	Saris Lux T-81 Lite	10-Sep-15		Marques Herndon
25	6302	Projector	Saris Lux T-81 Lite	08-Sep-15	15-Sep-15	Dean Sorenson
31						
32						

2. The **Filter menu** will appear.

3. **Check** or **uncheck** the boxes depending on the data you want to filter, and then click **OK**. In our example, we will uncheck everything except for **August**.
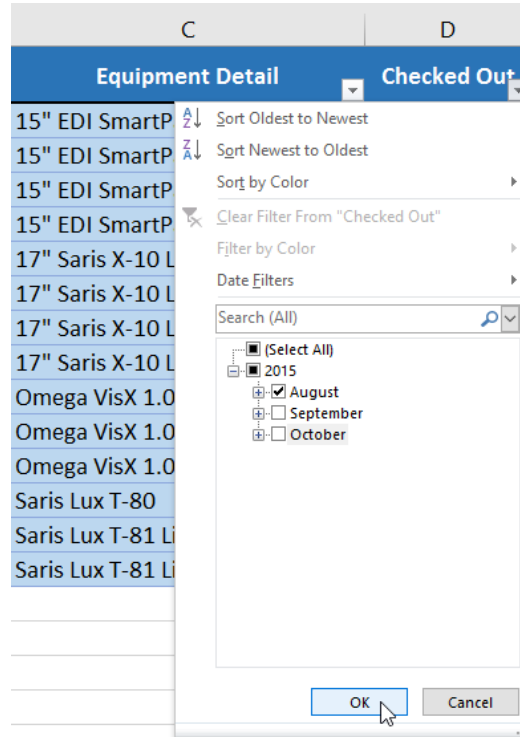
4. The new filter will be applied. In our example, the worksheet is now filtered to show only laptops and projectors that were checked out in August.

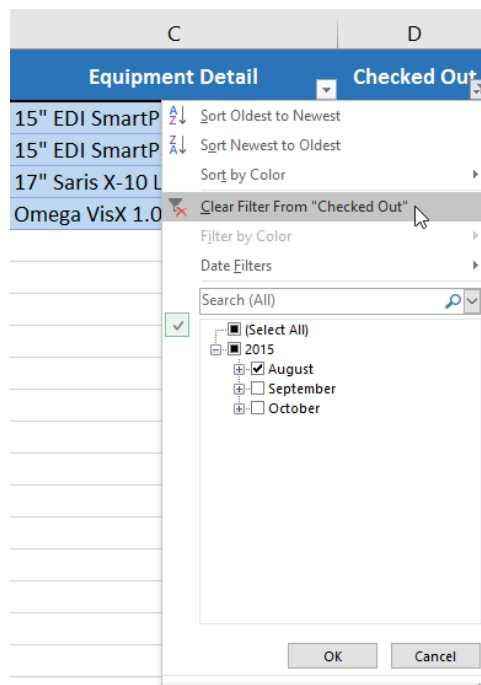|	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
5	1022	Laptop	15" EDI SmartPad L200-3 Laptop	14-Aug-15	16-Aug-15	Hank Sorenson
6	1023	Laptop	15" EDI SmartPad L200-3 Laptop	08-Aug-15	15-Aug-15	Jennifer Weiss
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-15	27-Aug-15	Jay Peralta
22	6102	Projector	Omega VisX 1.0	22-Aug-15	23-Aug-15	Jamila Kyle
31						
32						

C. To clear a filter:

After applying a filter, you may want to remove—or **clear**—it from your worksheet so you will be able to filter content in different ways.

1. Click the **drop-down arrow** for the filter you want to clear. In our example, we will clear the filter in column **D**.

2. The **Filter menu** will appear.

3. Choose **Clear Filter From [COLUMN NAME]** from the Filter menu. In our example, we will select **Clear Filter From "Checked Out"**.

4. The filter will be cleared from the column. The previously hidden data will be displayed.

	A	B	C	D	E	F
1	ID #	Type	Equipment Detail	Checked Out	Checked In	Checked Out By
4	1021	Laptop	15" EDI SmartPad L200-3 Laptop	15-Sep-15	01-Oct-15	Sofie Ragnar
5	1022	Laptop	15" EDI SmartPad L200-3 Laptop	14-Aug-15	15	Hank Sorenson
6	1023	Laptop	15" EDI SmartPad L200-3 Laptop	08-Aug-15	15-Aug-15	Jennifer Weiss
8	1025	Laptop	15" EDI SmartPad L200-4X	26-Sep-15	04-Oct-15	Min Seung
9	1031	Laptop	17" Saris X-10 Laptop	04-Oct-15		Nick Ortiz
10	1032	Laptop	17" Saris X-10 Laptop	19-Sep-15		Stanley Geyer
11	1033	Laptop	17" Saris X-10 Laptop	24-Sep-15	26-Sep-15	George D'Agosta
12	1034	Laptop	17" Saris X-10 Laptop	25-Aug-15	27-Aug-15	Jay Peralta
20	6100	Projector	Omega VisX 1.0	28-Sep-15	01-Oct-15	Win Armitage
21	6101	Projector	Omega VisX 1.0	26-Sep-15	27-Sep-15	Michael Earley
22	6102	Projector	Omega VisX 1.0	22-Aug-15	23-Aug-15	Jamila Kyle
23	6200	Projector	Saris Lux T-80	01-Sep-15	04-Sep-15	Jolie Chaturvedi
24	6301	Projector	Saris Lux T-81 Lite	10-Sep-15		Marques Herndon
25	6302	Projector	Saris Lux T-81 Lite	08-Sep-15	15-Sep-15	Dean Sorenson
31						
32						

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