



## Introduction

	1	2	3		B
	1	First Name	Last Name		
+	10				
+	21				
•	22	Derek	MacDonald		
•	23	Kris	Ackermann		
•	24	Jordan	Weller		
•	25	Regina	Oliver		
•	26	Alex	Yuen		
-	27				

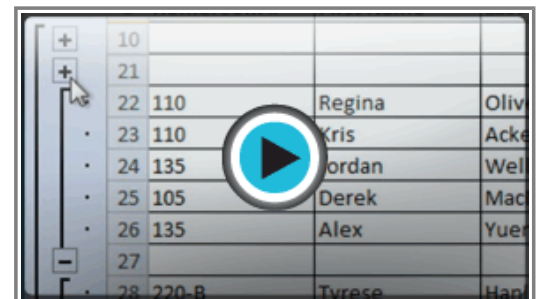
If the amount of data in your worksheet becomes overwhelming, creating an outline can help. Not only does this allow you to organize your data into groups, and then show or hide them from view; you can also summarize data for quick analysis using the Subtotal command (for example, subtotaling the cost of office supplies depending on the type of product).

In this lesson, you will learn how to **outline** your worksheet in order to summarize and control how your data is displayed.

## Outlining Data

**Outlines** give you the ability to group data that you may want to show or hide from view, and create a quick summary using the Subtotal command. Because outlines rely on grouping data that is related, you **must sort before you can outline**. For more information, you may want to review the [Sorting Data](#) lesson.

➤➤➤ Watch the video to learn about outlining and grouping data.



Watch the video (4:19). [Need help?](#)

### To Outline Data Using Subtotal:

The **Subtotal** command can be used to outline your worksheet in many different ways. It uses common functions like SUM, COUNT, AVG, and more, to **summarize** your data, and place it in a **group**. To learn more about functions, visit our [Working with Basic Functions](#) lesson.

In this example, we will use the Subtotal command to count the number of t-shirt sizes that were ordered at a local high school. This will also place each t-shirt size in a group, making it possible to show the count, but hide the details that are not crucial to the placing of the order (such as the student's homeroom number and payment date).

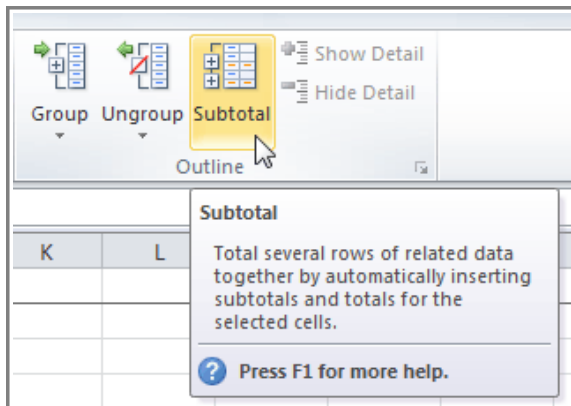
1. **Sort** according to the data you want to outline. Outlines rely on grouping data that is related. In this example,

we will outline the worksheet by T-Shirt Size, which has been sorted from smallest to largest.

	C	D	E	F
1	<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Kelly	11-Oct	Dark Red	Medium
12	Means	5-Oct	Dark Red	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Kelly	11-Oct	Heather Grey	Medium
16	Benson	11-Oct	White	Medium
17	Del Toro	13-Oct	White	Medium
18	Panarello	15-Oct	White	Medium
19	Weller	15-Oct	White	Medium
20	MacDonald	Pending	Dark Red	Large
21	Ackerman	1-Oct	Heather Grey	Large
22	Weller	5-Oct	Heather Grey	Large
23	Olivera	1-Oct	White	Large
24	Yuen	5-Oct	White	Large
25	Richards	4-Oct	Dark Red	X-Large

*Sorted by t-shirt size*

2. Select the **Data** tab, and locate the **Outline** group.
3. Click the **Subtotal** command to open the Subtotal dialog box.

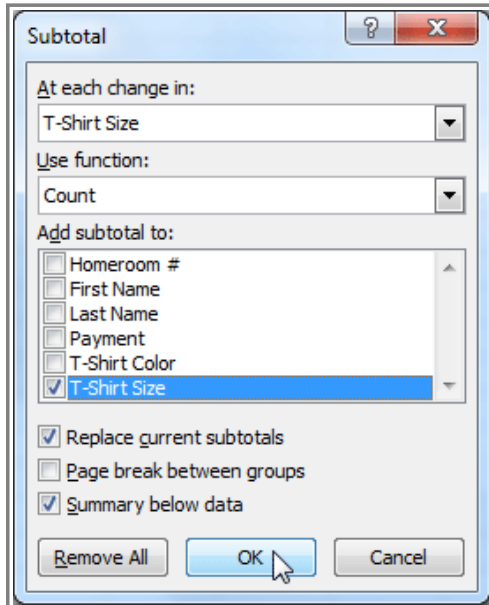


*Opening the Subtotal dialog box*

4. In the **At each change in** field, select the column you want to use to outline your worksheet. In this example, we will choose T-Shirt Size.
5. In the **Use function** field, choose from the list of functions that are available for subtotaling. We will use the

COUNT function to tally the number of each size.

6. Select the **column** you want the subtotal to appear in. We will choose the T-Shirt Size column.
7. Click **OK**.



*Clicking OK to subtotal*

8. The contents of your worksheet will be outlined. Each t-shirt size will be placed in its own group, and the subtotal (in this case, count) will be listed below each group.

	C	D	E	F
1	<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
2	Yaron	7-Oct	Dark Red	Small
3	Naser	14-Oct	Dark Red	Small
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10			<b>Small Count</b>	8
11	Chen	5-Oct	Dark Red	Medium
12	Kelly	11-Oct	Dark Red	Medium
13	Means	5-Oct	Dark Red	Medium
14	Bell	11-Oct	Dark Red	Medium
15	Albee	13-Oct	Heather Grey	Medium
16	Kelly	11-Oct	Heather Grey	Medium
17	Benson	11-Oct	White	Medium
18	Del Toro	13-Oct	White	Medium
19	Panarello	15-Oct	White	Medium
20	Weller	15-Oct	White	Medium
21			<b>Medium Count</b>	10

*Outlined with subtotal*

## Showing or Hiding Data

### To Show or Hide a Group:

1. Click the minus sign, also known as the **Hide Detail** symbol, to collapse the group.



1	2	3	C	D	E	F
	1		<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
	8	•	Peyton-Gomez	Pending	White	Small
	9	•	Lazar	14-Oct	White	Small
	10				<b>Small Count</b>	8
	11	•	Chen	5-Oct	Dark Red	Medium
	12	•	Kelly	11-Oct	Dark Red	Medium
	13	•	Means	5-Oct	Dark Red	Medium
	14	•	Bell	11-Oct	Dark Red	Medium
	15	•	Albee	13-Oct	Heather Grey	Medium
	16	•	Kelly	11-Oct	Heather Grey	Medium
	17	•	Benson	11-Oct	White	Medium
	18	•	Del Toro	13-Oct	White	Medium
	19	•	Panarello	15-Oct	White	Medium
	20	•	Weller	15-Oct	White	Medium
	21				<b>Medium Count</b>	10
	22	•	MacDonald	Pending	Dark Red	Large
	23	•	Ackerman	1-Oct	Heather Grey	Large
	24	•	Weller	5-Oct	Heather Grey	Large
	25	•	Olivera	1-Oct	White	Large
	26	•	Yuen	5-Oct	White	Large
	27				<b>Large Count</b>	5

*Hiding an expanded group*




2. Click the plus sign, also known as the **Show Detail** symbol, to expand the group again.

1	2	3	C	D	E	F
	1		<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
•	8		Peyton-Gomez	Pending	White	Small
•	9		Lazar	14-Oct	White	Small
	10				<b>Small Count</b>	8
	21				<b>Medium Count</b>	10
	22		MacDonald	Pending	Dark Red	Large
•	23		Ackerman	1-Oct	Heather Grey	Large
•	24		Weller	5-Oct	Heather Grey	Large
•	25		Olivera	1-Oct	White	Large
•	26		Yuen	5-Oct	White	Large
	27				<b>Large Count</b>	5
•	28		Richards	4-Oct	Dark Red	X-Large
•	29		Nichols	6-Oct	Dark Red	X-Large
•	30		Hanlon	4-Oct	Heather Grey	X-Large
•	31		Flores	6-Oct	White	X-Large
	32				<b>X-Large Count</b>	4
	33				<b>Grand Count</b>	27

*Showing a collapsed group*

You can also use the  **Show Detail** or  **Hide Detail** commands on the **Data** tab in the Outline group. First select a cell in the group you want to show or hide, then click the appropriate command.

## To View Groups by Level:

The groups in your outline, based on their hierarchy, are placed on different levels. You can quickly display as little or as much information as you want by clicking the level symbols    to the left of your worksheet. In this example, we will view levels in descending order, starting with the entire worksheet on display, then finishing with the grand total. While this example contains only 3 levels, Excel can accommodate up to 8.

1. Click the **highest level** (in this example, level **3**) to view and expand all of your groups. Viewing groups at the highest level will display the entirety of your worksheet.

1	2	3	C	D	E	F
1			<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
2	•		Yaron	7-Oct	Dark Red	Small
3	•		Naser	14-Oct	Dark Red	Small
4	•		Ellison	Pending	Dark Red	Small
5	•		White	7-Oct	Heather Grey	Small
6	•		Reynolds	7-Oct	Heather Grey	Small
7	•		Shaw	7-Oct	Heather Grey	Small
8	•		Peyton-Gomez	Pending	White	Small
9	•		Lazar	14-Oct	White	Small
10					<b>Small Count</b>	8
11	•		Chen	5-Oct	Dark Red	Medium
12	•		Kelly	11-Oct	Dark Red	Medium
13	•		Means	5-Oct	Dark Red	Medium
14	•		Bell	11-Oct	Dark Red	Medium
15	•		Albee	13-Oct	Heather Grey	Medium
16	•		Kelly	11-Oct	Heather Grey	Medium
17	•		Benson	11-Oct	White	Medium
18	•		Del Toro	13-Oct	White	Medium
19	•		Panarello	15-Oct	White	Medium
20	•		Weller	15-Oct	White	Medium
21					<b>Medium Count</b>	10
22	•		MacDonald	Pending	Dark Red	Large
23	•		Ackerman	1-Oct	Heather Grey	Large
24	•		Weller	5-Oct	Heather Grey	Large

*Viewing data at the highest level*

- Click the **next level** (in this example, level 2) to hide the detail of the previous level. In this example, level 2 contains each subtotal.

1	2	3	C	D	E	F
1			<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
10	+				<b>Small Count</b>	8
21	+				<b>Medium Count</b>	10
27	+				<b>Large Count</b>	5
32	+				<b>X-Large Count</b>	4
33	-				<b>Grand Count</b>	27
34						

*Viewing data on level 2*

- Click the **lowest level** (level 1) to display the lowest level of detail. In this example, level 1 contains only the grand total.

1	2	3	C	D	E	F
1			<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
+	33				<b>Grand Count</b>	27
	34					
	35					

*Viewing data on level 1*

## Removing Groups and Subtotaling

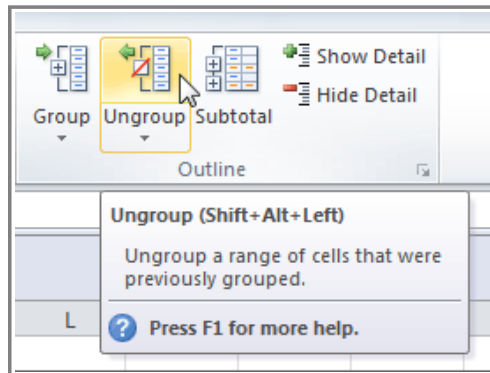
### To Ungroup Data:

1. Select the rows or columns that you want to ungroup. In this example, we will ungroup size Small.

1	2	3	C	D	E	F
1			<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
•	2		Yaron	7-Oct	Dark Red	Small
•	3		Naser	14-Oct	Dark Red	Small
•	4		Ellison	Pending	Dark Red	Small
•	5		White	7-Oct	Heather Grey	Small
•	6		Reynolds	7-Oct	Heather Grey	Small
•	7		Shaw	7-Oct	Heather Grey	Small
•	8		Peyton-Gomez	Pending	White	Small
•	9		Lazar	14-Oct	White	Small
-	10				<b>Small Count</b>	8
•	11		Chen	5-Oct	Dark Red	Medium
•	12		Kelly	11-Oct	Dark Red	Medium
•	13		Means	5-Oct	Dark Red	Medium
•	14		Bell	11-Oct	Dark Red	Medium
•	15		Albee	13-Oct	Heather Grey	Medium
•	16		Kelly	11-Oct	Heather Grey	Medium
•	17		Benson	11-Oct	White	Medium

*Selecting cells to ungroup*

2. From the **Data** tab, click the **Ungroup** command. The range of cells will be ungrouped.



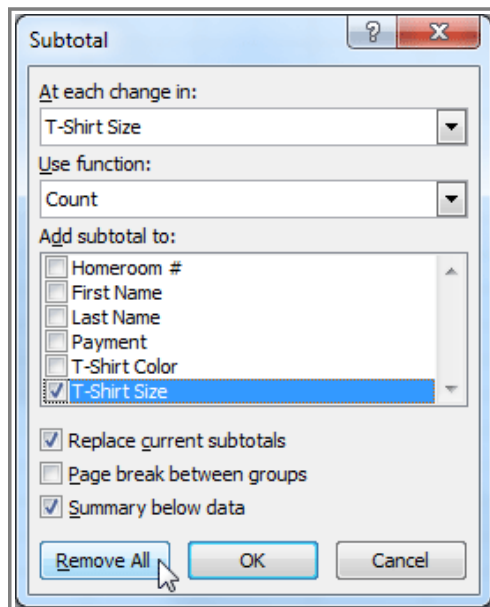
***Ungrouping the selected cells***

To ungroup all the groups in your outline, open the drop-down menu under the **Ungroup** command, and choose **Clear Outline**.

**Ungroup** and **Clear Outline** will not remove subtotalling from your worksheet. Summary or subtotal data will stay in place and continue to function until you remove it.

## To Ungroup Data and Remove Subtotaling:

1. From the **Data** tab, click the **Subtotal** command to open the Subtotal dialog box.
2. Click **Remove All**.



***Removing groups and subtotaling***

3. All data will be ungrouped, and subtotals will be removed.



	C	D	E	F
1	<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
4	Ellison	Pending	Dark Red	Small
5	White	7-Oct	Heather Grey	Small
6	Reynolds	7-Oct	Heather Grey	Small
7	Shaw	7-Oct	Heather Grey	Small
8	Peyton-Gomez	Pending	White	Small
9	Lazar	14-Oct	White	Small
10	Chen	5-Oct	Dark Red	Medium
11	Kelly	11-Oct	Dark Red	Medium
12	Means	5-Oct	Dark Red	Medium
13	Bell	11-Oct	Dark Red	Medium
14	Albee	13-Oct	Heather Grey	Medium
15	Kelly	11-Oct	Heather Grey	Medium
16	Benson	11-Oct	White	Medium
17	Del Toro	13-Oct	White	Medium
18	Panarello	15-Oct	White	Medium
19	Weller	15-Oct	White	Medium
20	MacDonald	Pending	Dark Red	Large
21	Ackerman	1-Oct	Heather Grey	Large
22	Weller	5-Oct	Heather Grey	Large
23	Olivera	1-Oct	White	Large
24	Yuen	5-Oct	White	Large
25	Richards	4-Oct	Dark Red	X-Large

*Data without groups or subtotaling*

## Creating Your Own Groups

The **Group** command allows you to group any range of cells - either columns or rows. It does not calculate a subtotal, or rely on your data being sorted. This gives you the ability to show or hide any part of your worksheet, and display only the information you need.

### To Create and Control Your Own Group:

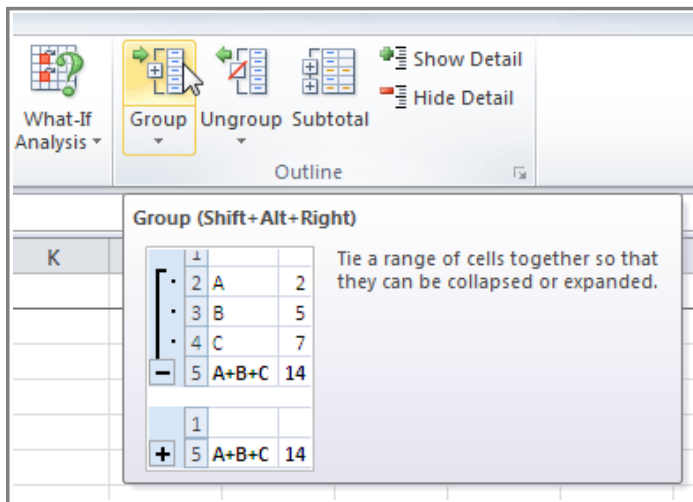
In this example, we will prepare a list of t-shirt colors and sizes that need to be distributed to each homeroom. Some of the data in the worksheet is not relevant to the distribution of the t-shirts; however, instead of deleting it, we will group it, then temporarily hide it from view.

1. Select the range of cells that you want to group. In this example, we will group the First Name, Last Name, and Payment columns.

	B	C	D	E
1	<b>First Name</b>	<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>
2	Esther	Yaron	7-Oct	Dark Red
3	Anisa	Naser	14-Oct	Dark Red
4	Brigid	Ellison	Pending	Dark Red
5	Melissa	White	7-Oct	Heather Grey
6	Malik	Reynolds	7-Oct	Heather Grey
7	Windy	Shaw	7-Oct	Heather Grey
8	Christopher	Peyton-Gomez	Pending	White
9	Michael	Lazar	14-Oct	White
10	Christiana	Chen	5-Oct	Dark Red
11	Sidney	Kelly	11-Oct	Dark Red

*Selecting a range of cells to group*

- From the **Data** tab, click the **Group** command.



*Grouping the selected cells*

- Excel will group the selected columns or rows.

1	-			
2	.	.	.	
	B	C	D	E
1	<b>First Name</b>	<b>Last Name</b>	<b>Payment</b>	<b>T-Shirt Color</b>
2	Esther	Yaron	7-Oct	Dark Red
3	Anisa	Naser	14-Oct	Dark Red
4	Brigid	Ellison	Pending	Dark Red
5	Melissa	White	7-Oct	Heather Grey
6	Malik	Reynolds	7-Oct	Heather Grey
7	Windy	Shaw	7-Oct	Heather Grey
8	Christopher	Peyton-Gomez	Pending	White
9	Michael	Lazar	14-Oct	White
10	Christiana	Chen	5-Oct	Dark Red
11	Sidney	Kelly	11-Oct	Dark Red

**Grouped cells**

4. Click the minus sign, also known as the **Hide Detail** symbol, to hide the group.
5. The group will be hidden from view.

1	+		
2			
	A	E	F
1	<b>Homeroom #</b>	<b>T-Shirt Color</b>	<b>T-Shirt Size</b>
2	105	Dark Red	Small
3	135	Dark Red	Small
4	220-A	Dark Red	Small
5	105	Heather Grey	Small
6	220-B	Heather Grey	Small
7	220-B	Heather Grey	Small
8	220-A	White	Small
9	220-B	White	Small
10	105	Dark Red	Medium
11	105	Dark Red	Medium

**Click to show a hidden group**

Click the plus sign, also known as the **Show Detail** symbol, to show the group again.

## Challenge!



1. Open an existing Excel workbook. If you want, you can use this [example](#).
2. Outline your worksheet using the Subtotal command. If you are using the example, outline by t-shirt size.
3. Display the first level of groups in your outline.
4. Display the highest level to view your entire worksheet again.
5. Create your own group of rows or columns, then hide the group from view.
6. Ungroup any range of data.
7. Remove subtotaling from your worksheet.