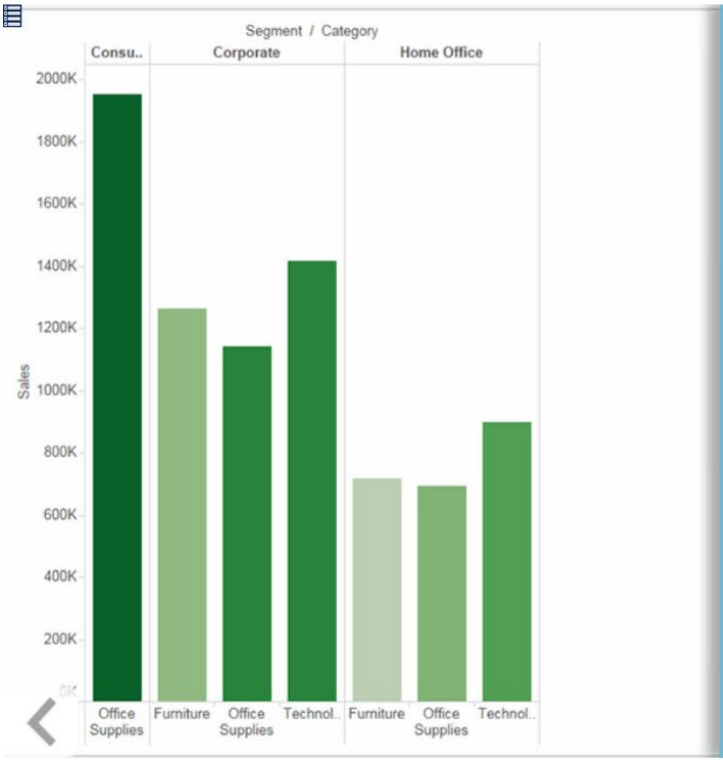
Create and Customize Filters

Create multiple filters on sales data.

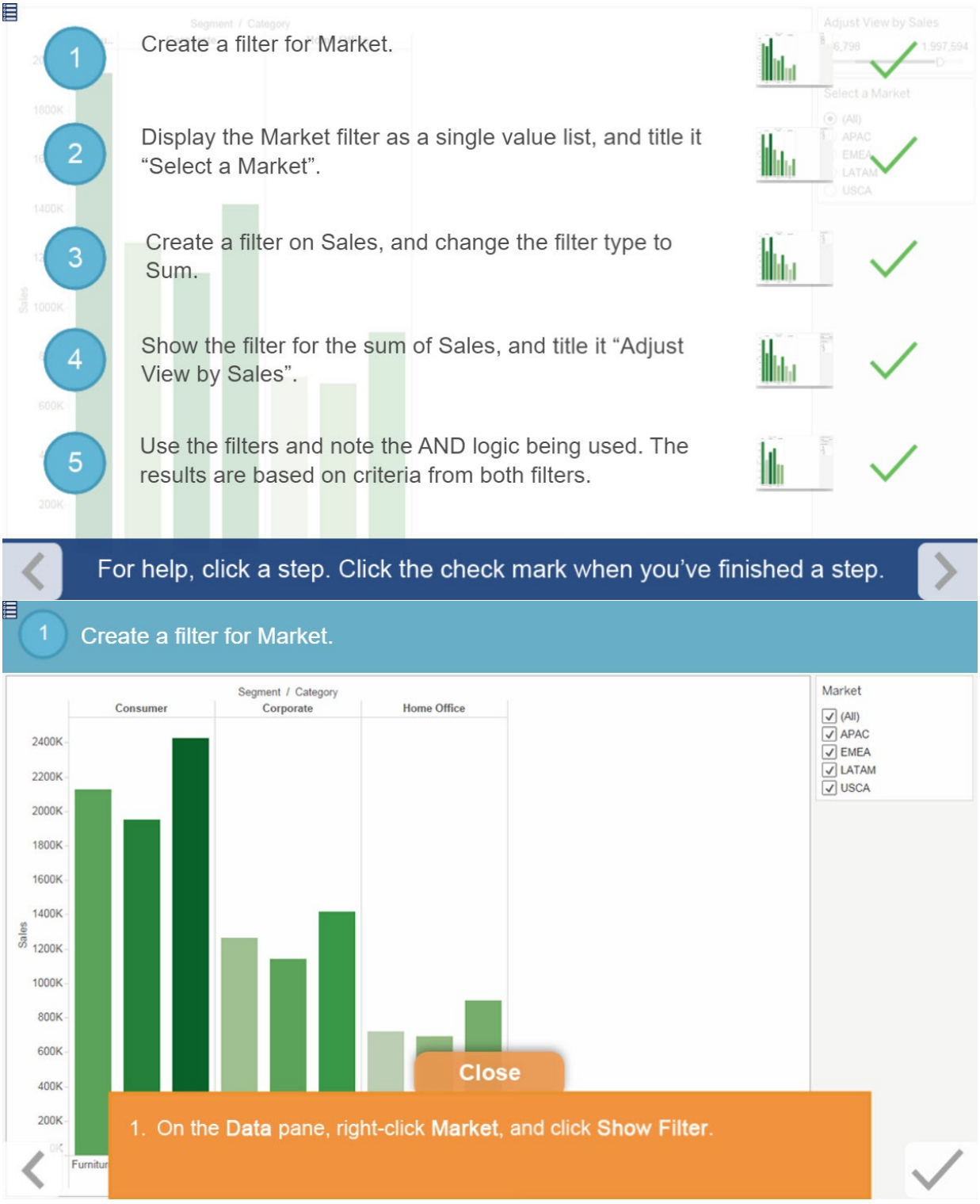
Start



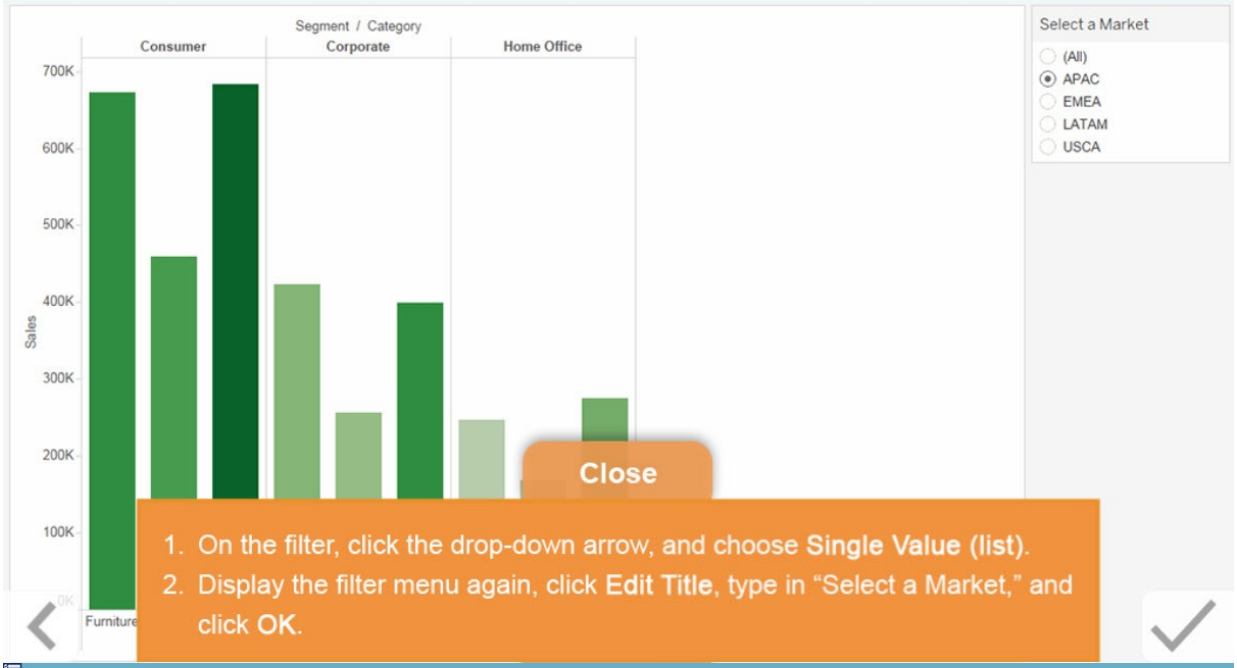
Open the activity workbook to complete this scenario:

You have a view that shows sales data for all your inventory. Create a filter that allows users to filter sales by individual market, and create a second filter to enable people to filter on the sum of sales using a slider.

Good luck!

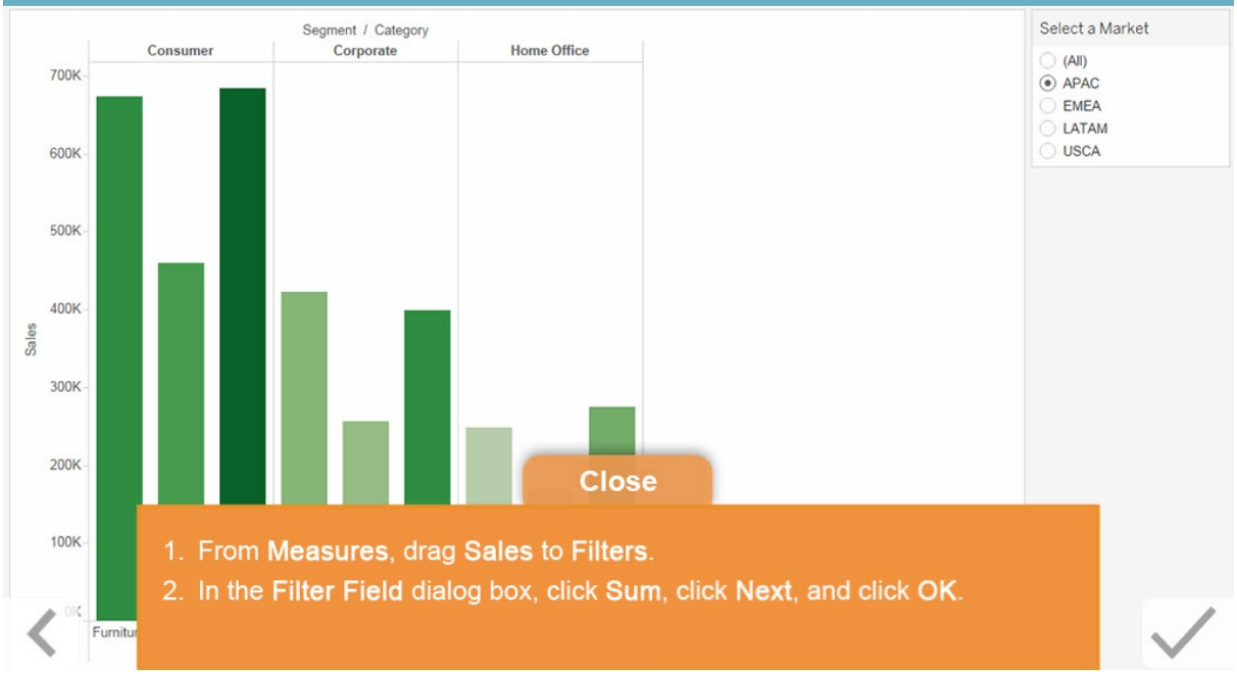

1 Create a filter for Market.
2 Display the Market filter as a single value list, and title it “Select a Market”.
3 Create a filter on Sales, and change the filter type to Sum.
4 Show the filter for the sum of Sales, and title it “Adjust View by Sales”.
5 Use the filters and note the AND logic being used. The results are based on criteria from both filters.
For help, click a step. Click the check mark when you’ve finished a step.
1 Create a filter for Market.
Segment / Category
Consumer
Corporate
Home Office
Sales
Market
(All)
APAC
EMEA
LATAM
USCA
Close
1. On the Data pane, right-click Market, and click Show Filter.

2 Display the Market filter as a single value list, and title it “Select a Market”.



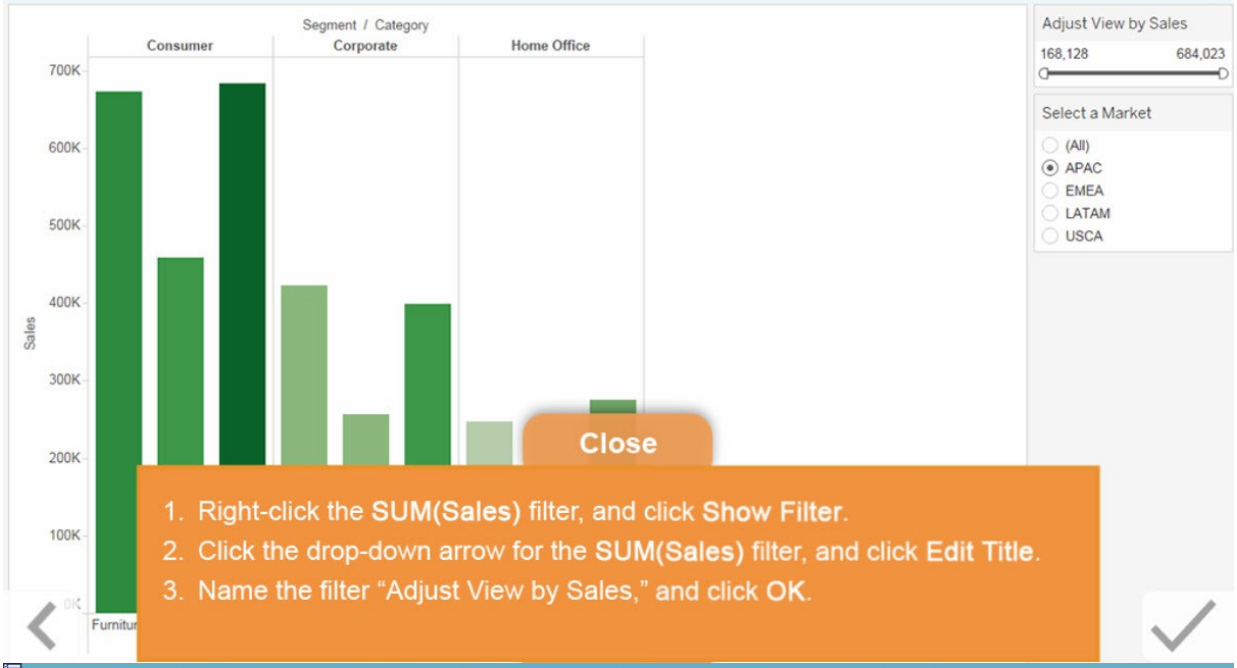
1. On the filter, click the drop-down arrow, and choose **Single Value (list)**.
2. Display the filter menu again, click **Edit Title**, type in “Select a Market,” and click **OK**.

3 Create a filter on Sales, and change the filter type to Sum.



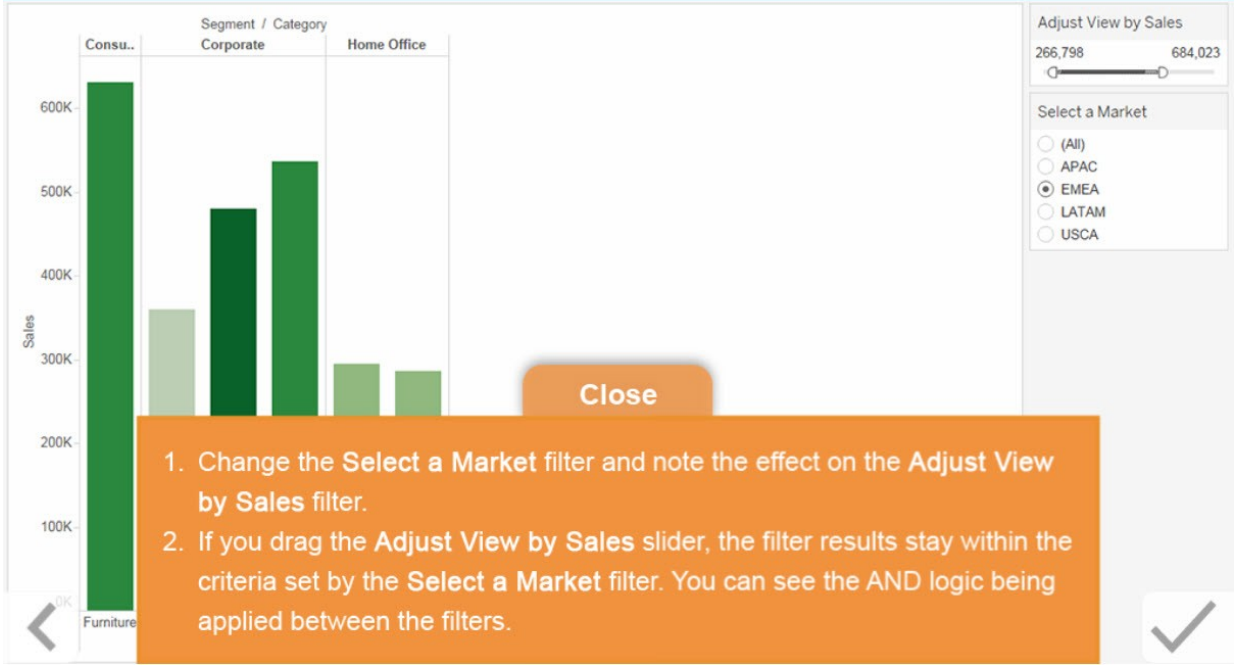
1. From **Measures**, drag **Sales** to **Filters**.
2. In the **Filter Field** dialog box, click **Sum**, click **Next**, and click **OK**.

4 Show the filter for the sum of Sales, and title it “Adjust View by Sales”.



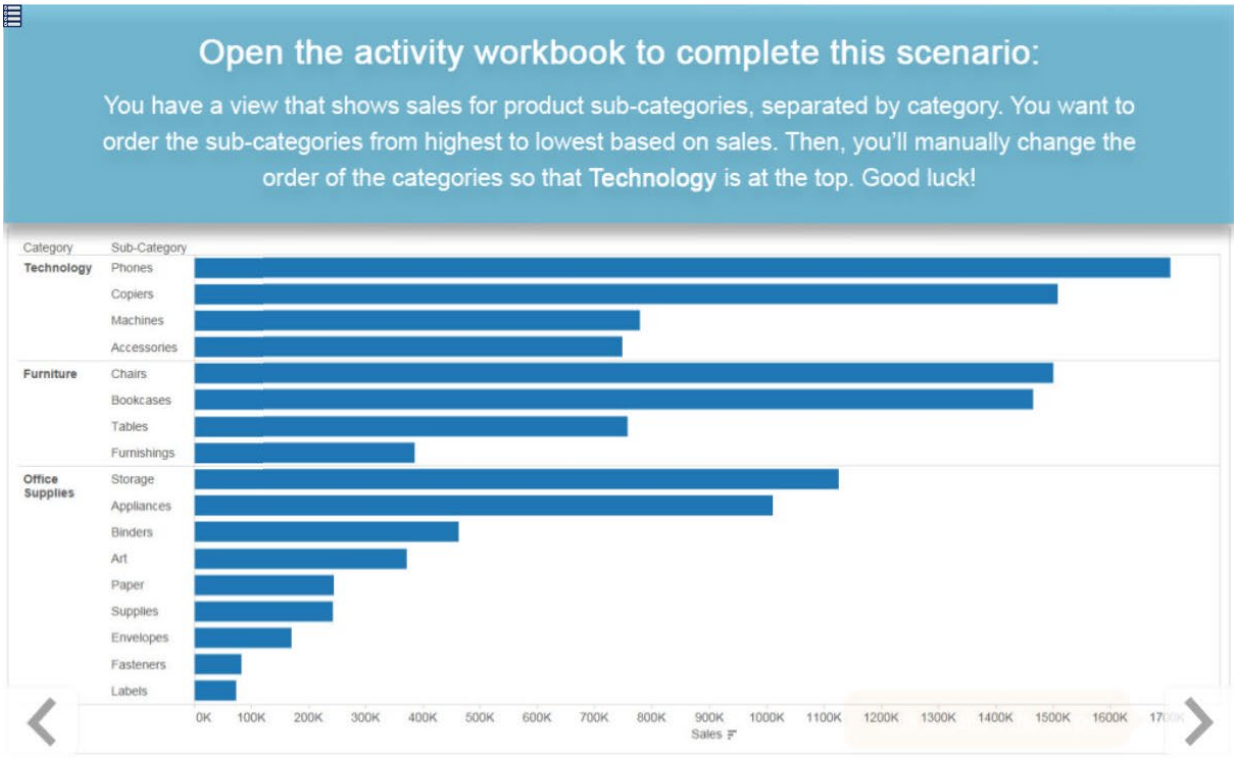
1. Right-click the **SUM(Sales)** filter, and click **Show Filter**.
2. Click the drop-down arrow for the **SUM(Sales)** filter, and click **Edit Title**.
3. Name the filter “Adjust View by Sales,” and click **OK**.

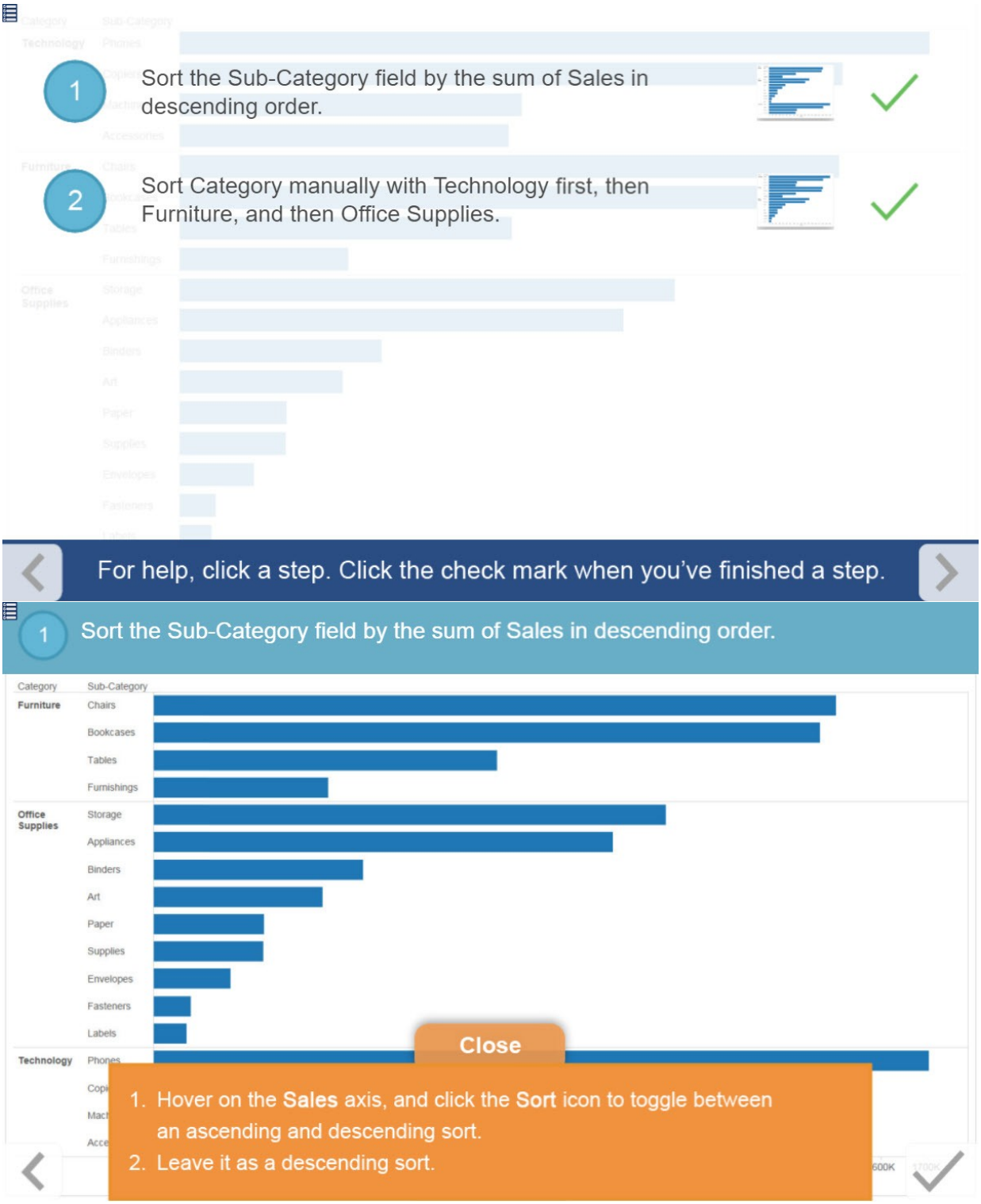
5 Use the filters and note the AND logic being used. The results are based on criteria from both filters.

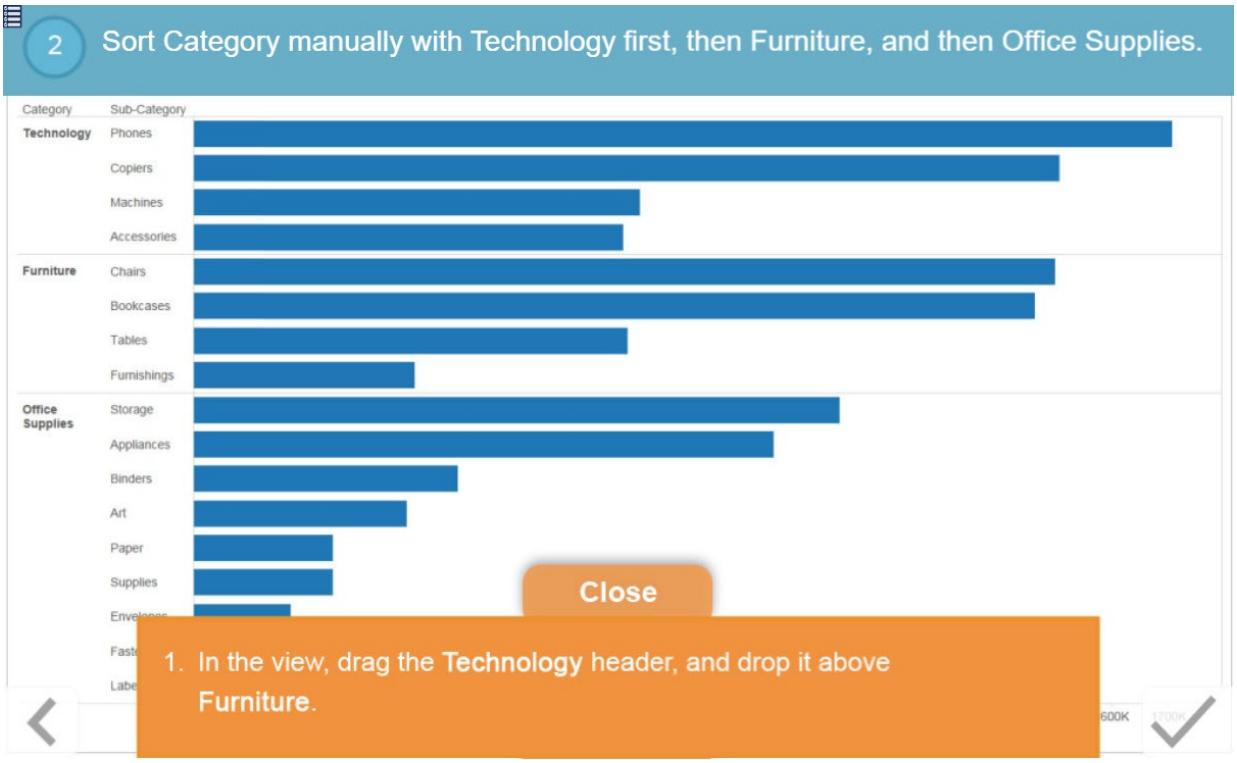


1. Change the **Select a Market** filter and note the effect on the **Adjust View by Sales** filter.
2. If you drag the **Adjust View by Sales** slider, the filter results stay within the criteria set by the **Select a Market** filter. You can see the AND logic being applied between the filters.

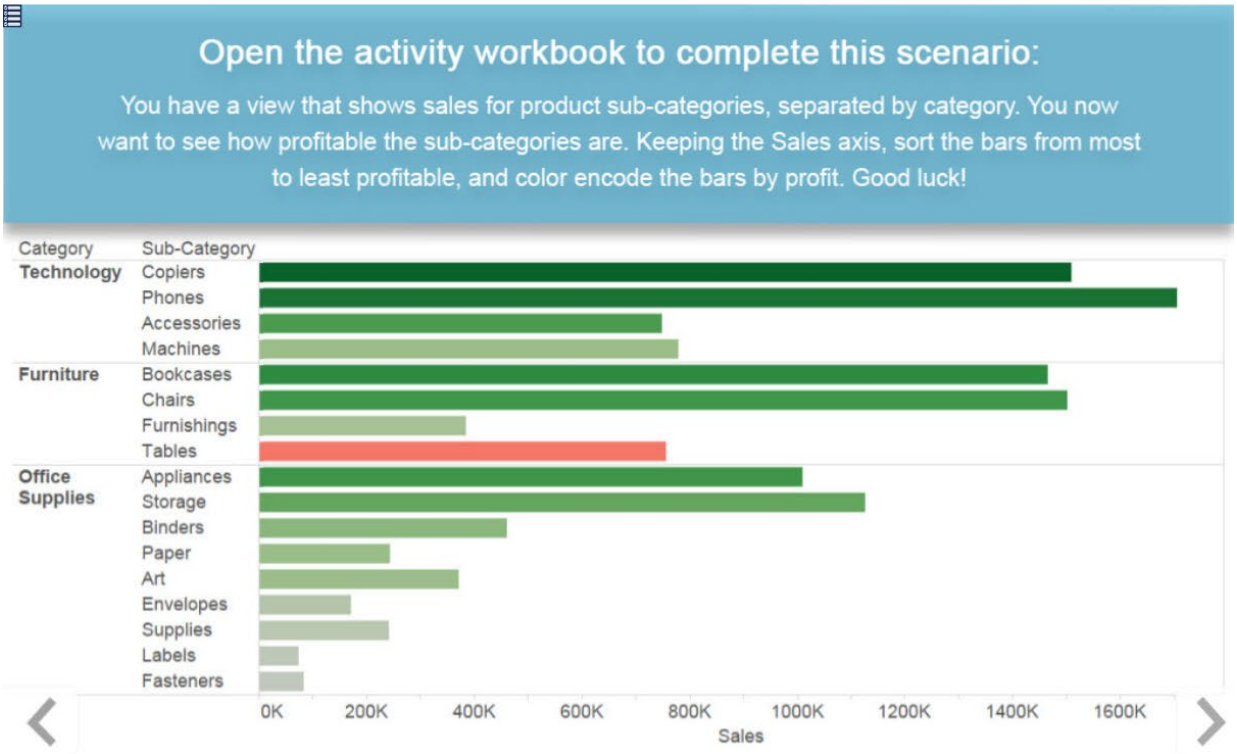

Sort by Fields in a View
Use one-click sorting and manual drag-and-drop sorting.
Start


Open the activity workbook to complete this scenario:
You have a view that shows sales for product sub-categories, separated by category. You want to order the sub-categories from highest to lowest based on sales. Then, you'll manually change the order of the categories so that Technology is at the top. Good luck!
Category
Sub-Category
Technology
Phones
Copiers
Machines
Accessories
Furniture
Chairs
Bookcases
Tables
Furnishings
Office Supplies
Storage
Appliances
Binders
Art
Paper
Supplies
Envelopes
Fasteners
Labels
0K
100K
200K
300K
400K
500K
600K
700K
800K
900K
1000K
1100K
1200K
1300K
1400K
1500K
1600K
Sales

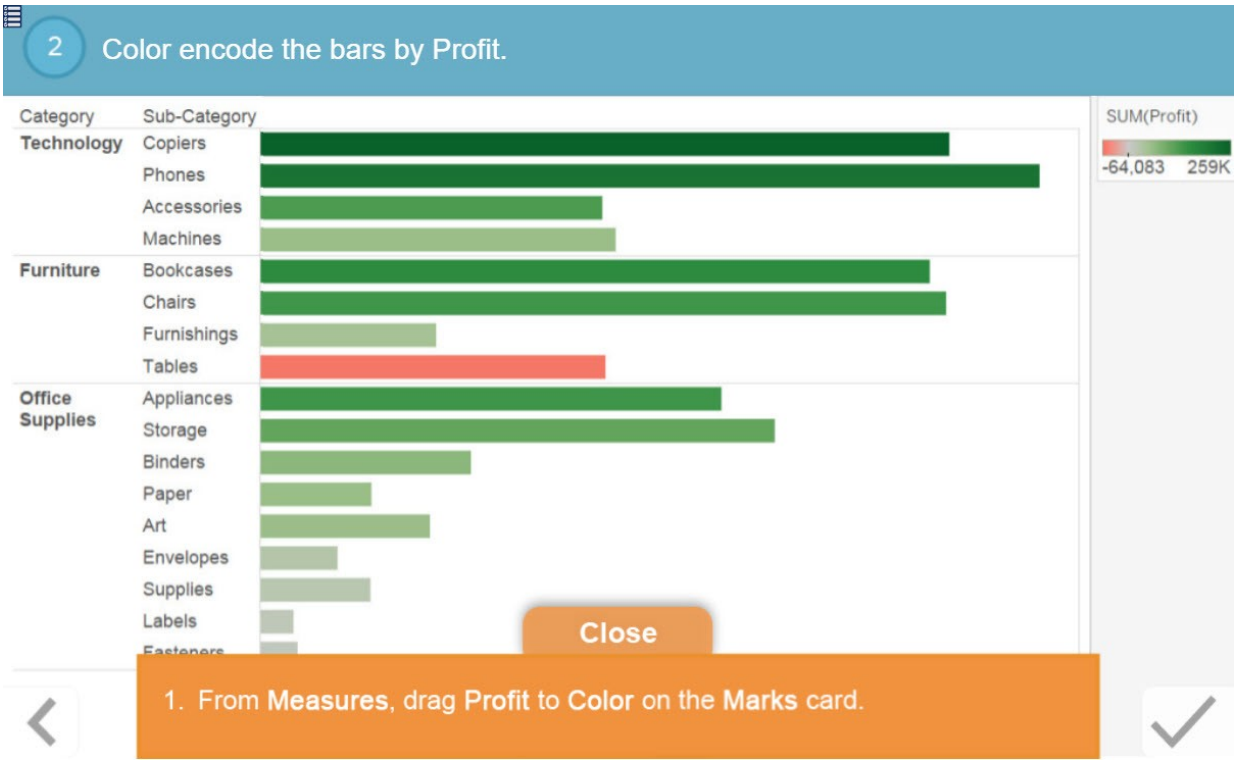

1
Sort the Sub-Category field by the sum of Sales in descending order.
2
Sort Category manually with Technology first, then Furniture, and then Office Supplies.
For help, click a step. Click the check mark when you've finished a step.
1
Sort the Sub-Category field by the sum of Sales in descending order.
Category
Sub-Category
Furniture
Chairs
Bookcases
Tables
Furnishings
Office Supplies
Storage
Appliances
Binders
Art
Paper
Supplies
Envelopes
Fasteners
Labels
Technology
Phones
Close
1. Hover on the Sales axis, and click the Sort icon to toggle between an ascending and descending sort.
2. Leave it as a descending sort.


2
Sort Category manually with Technology first, then Furniture, and then Office Supplies.
Category
Sub-Category
Technology
Phones
Copiers
Machines
Accessories
Furniture
Chairs
Bookcases
Tables
Furnishings
Office Supplies
Storage
Appliances
Binders
Art
Paper
Supplies
Close
1. In the view, drag the Technology header, and drop it above Furniture.

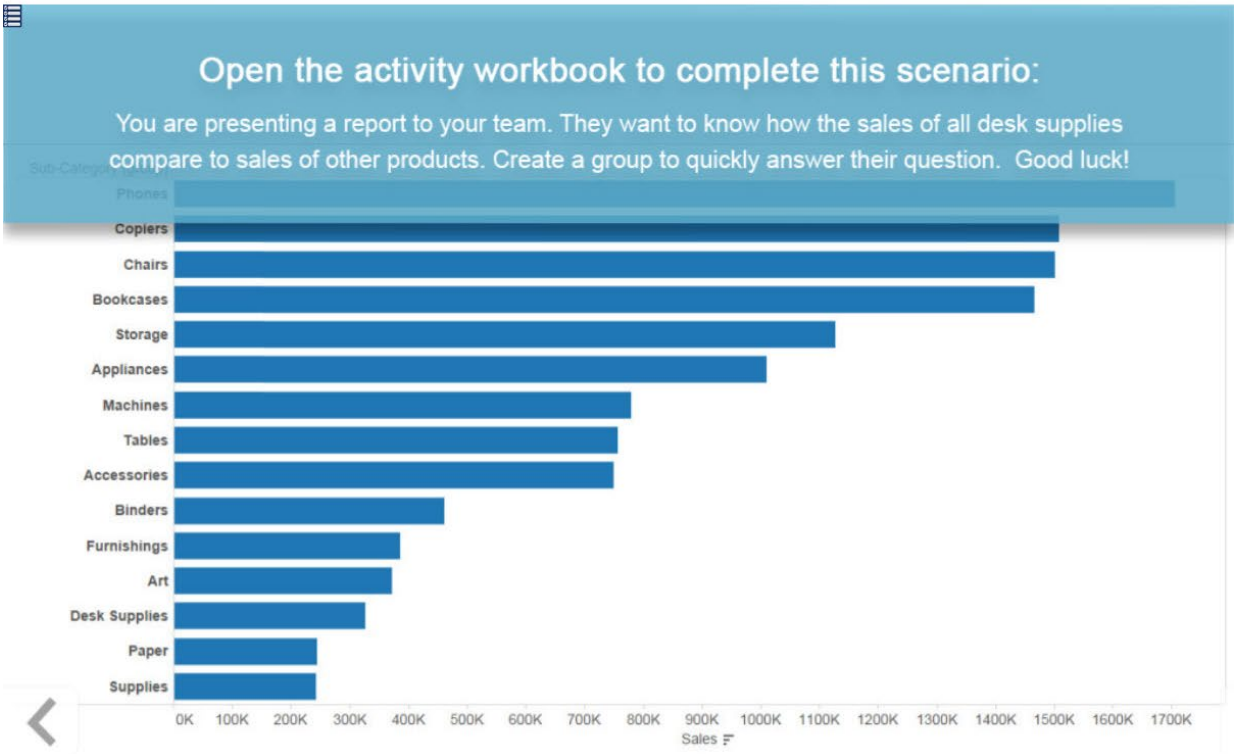

Sort by Fields Not in a View
Sort data in a view by a field that is not in the view.
Start

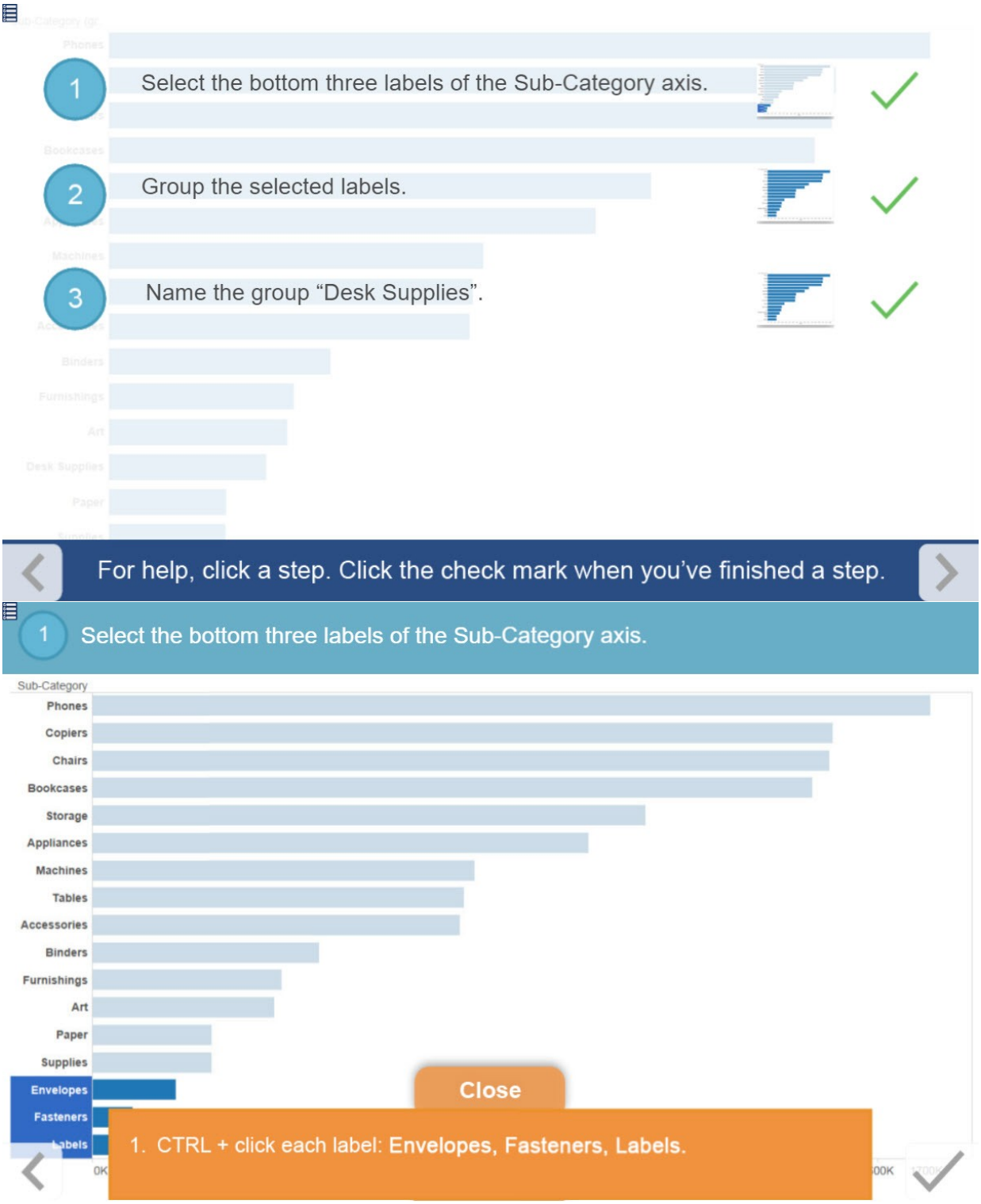

Open the activity workbook to complete this scenario:
You have a view that shows sales for product sub-categories, separated by category. You now want to see how profitable the sub-categories are. Keeping the Sales axis, sort the bars from most to least profitable, and color encode the bars by profit. Good luck!
Category
Sub-Category
Technology
Copiers
Phones
Accessories
Machines
Furniture
Bookcases
Chairs
Furnishings
Tables
Office Supplies
Appliances
Storage
Binders
Paper
Art
Envelopes
Supplies
Labels
Fasteners
0K
200K
400K
600K
800K
1000K
1200K
1400K
1600K
Sales


1
Sort the Sub-Category field by Profit, aggregated by Sum.
2
Color encode the bars by Profit.
For help, click a step. Click the check mark when you've finished a step.
1
Sort the Sub-Category field by Profit, aggregated by Sum.
Category
Sub-Category
Technology
Copiers
Phones
Accessories
Machines
Furniture
Bookcases
Chairs
Furnishings
Tables
Office Supplies
Appliances
Storage
Binders
Close
1. On Rows, right-click Sub-Category, and click Sort.
2. In the Sort [Sub-Category] dialog box, confirm the Sort order is Descending.
3. Under Sort by, select Field, and choose Profit with an aggregation of Sum.
4. Click OK.
1600K

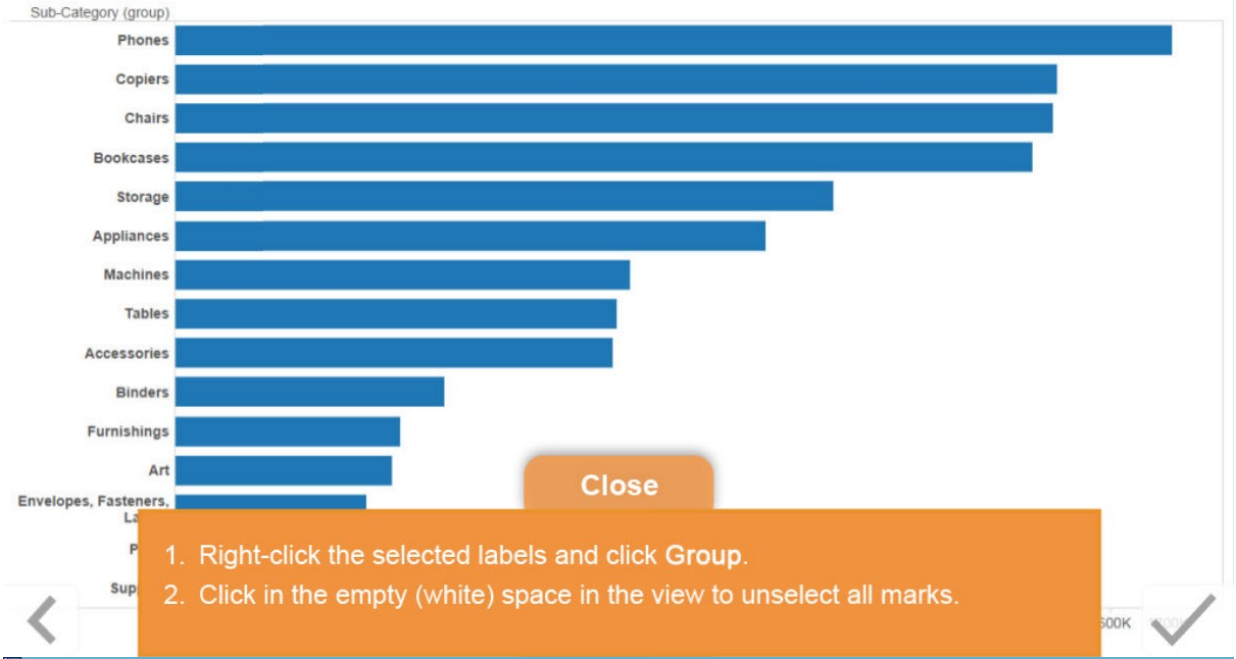

2
Color encode the bars by Profit.
Category
Sub-Category
Technology
Copiers
Phones
Accessories
Machines
Furniture
Bookcases
Chairs
Furnishings
Tables
Office Supplies
Appliances
Storage
Binders
Paper
Art
Envelopes
Supplies
Labels
SUM(Profit)
-64,083
259K
Close
1. From Measures, drag Profit to Color on the Marks card.


Create a Group
Use a group to answer a sales question.
Start


Open the activity workbook to complete this scenario:
You are presenting a report to your team. They want to know how the sales of all desk supplies compare to sales of other products. Create a group to quickly answer their question. Good luck!
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Desk Supplies
Paper
Supplies
0K 100K 200K 300K 400K 500K 600K 700K 800K 900K 1000K 1100K 1200K 1300K 1400K 1500K 1600K 1700K
Sales

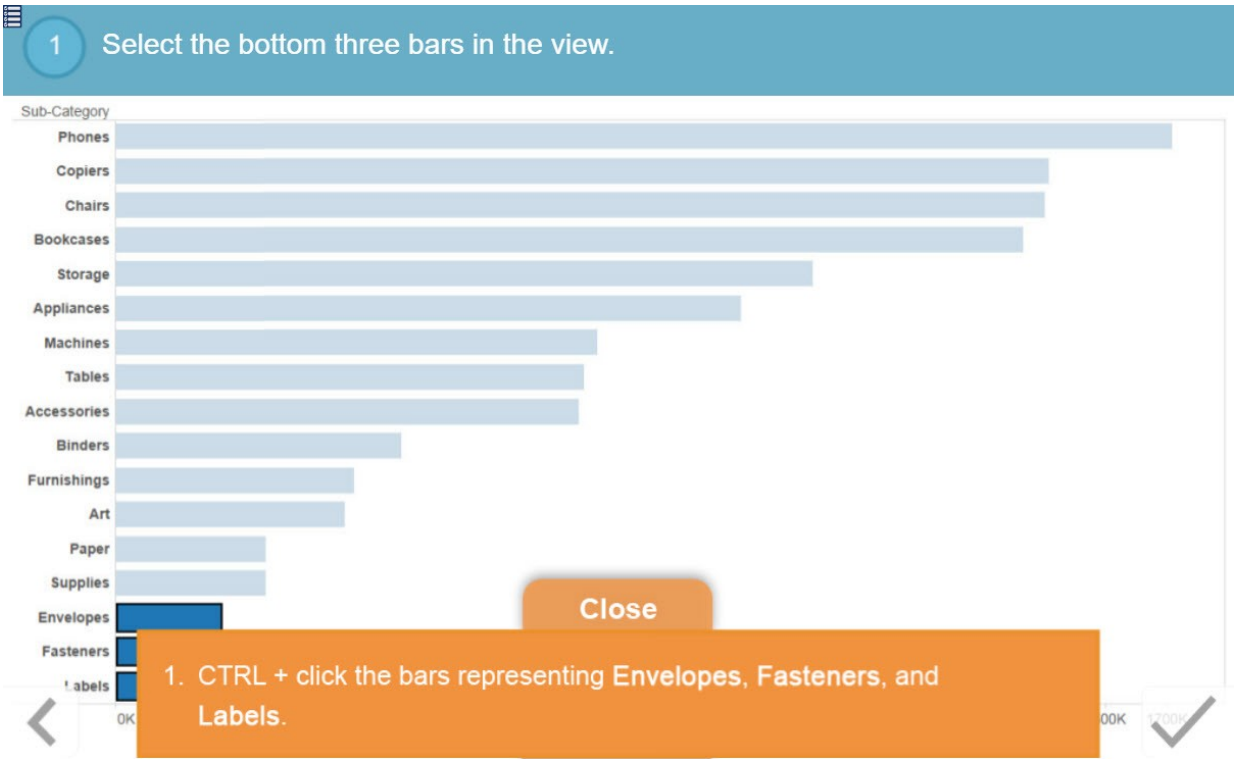

1 Select the bottom three labels of the Sub-Category axis.
2 Group the selected labels.
3 Name the group “Desk Supplies”.
For help, click a step. Click the check mark when you’ve finished a step.
1 Select the bottom three labels of the Sub-Category axis.
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Labels
Close
1. CTRL + click each label: Envelopes, Fasteners, Labels.

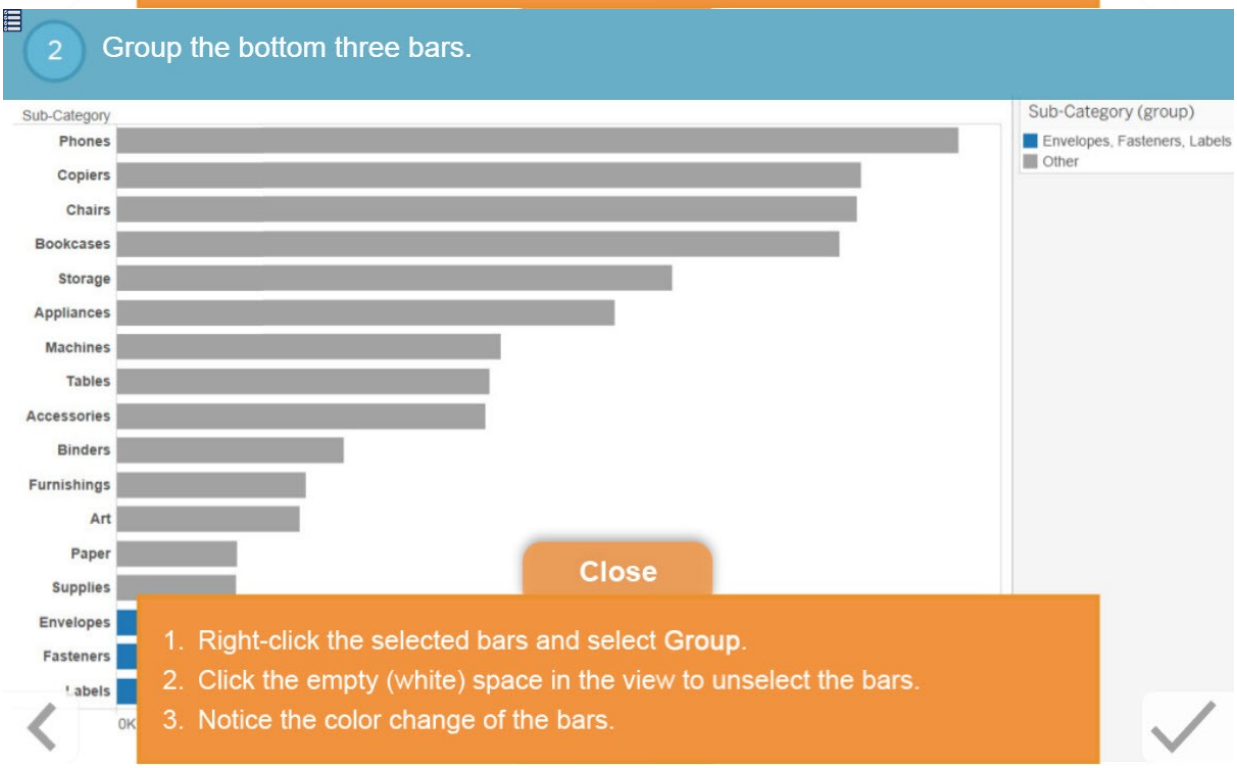
2 Group the selected labels.



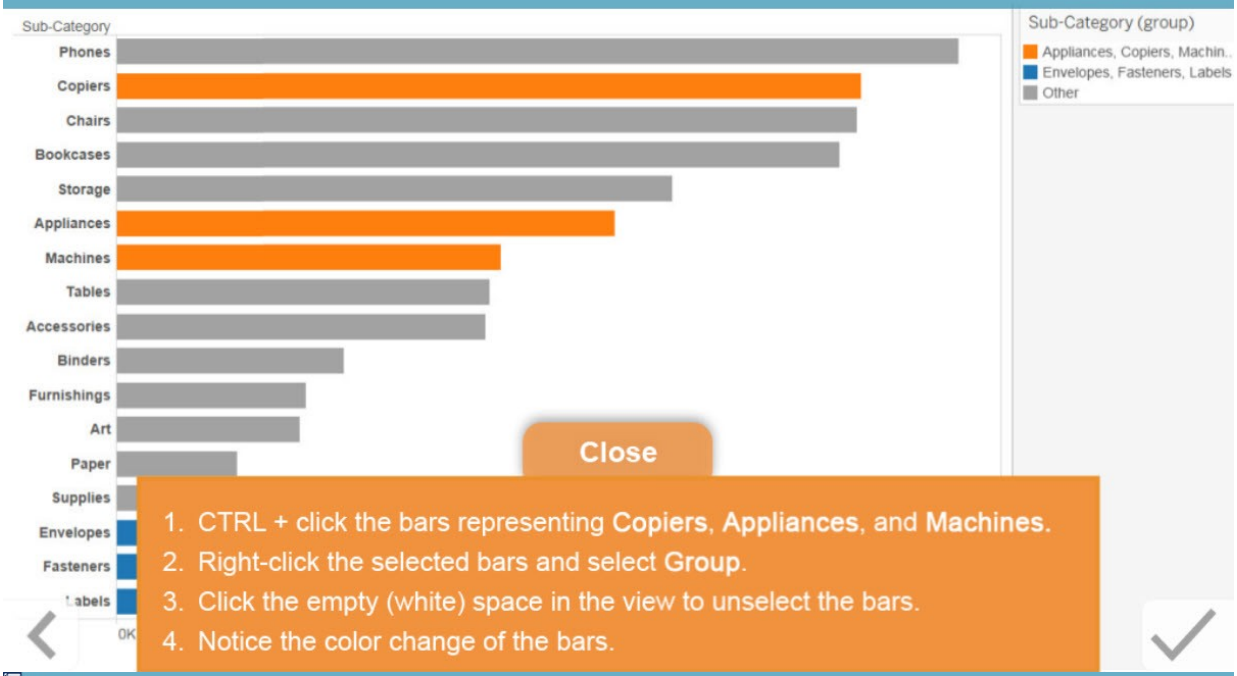
3 Name the group “Desk Supplies”.


Create Visual Groups
Highlight several groups using colors in the view.
Start
1
Select the bottom three bars in the view.
2
Group the bottom three bars.
3
Group copiers, appliances, and machines.
4
Rename Sub-Category (group) “Office Products”.
5
Rename the grouped members of Office Products “Desk Supplies” and “Office Machines”.
For help, click a step. Click the check mark when you’ve finished a step.


1
Select the bottom three bars in the view.
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Labels
Close
1. CTRL + click the bars representing Envelopes, Fasteners, and Labels.


2
Group the bottom three bars.
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Labels
Sub-Category (group)
Envelopes, Fasteners, Labels
Other
Close
1. Right-click the selected bars and select Group.
2. Click the empty (white) space in the view to unselect the bars.
3. Notice the color change of the bars.

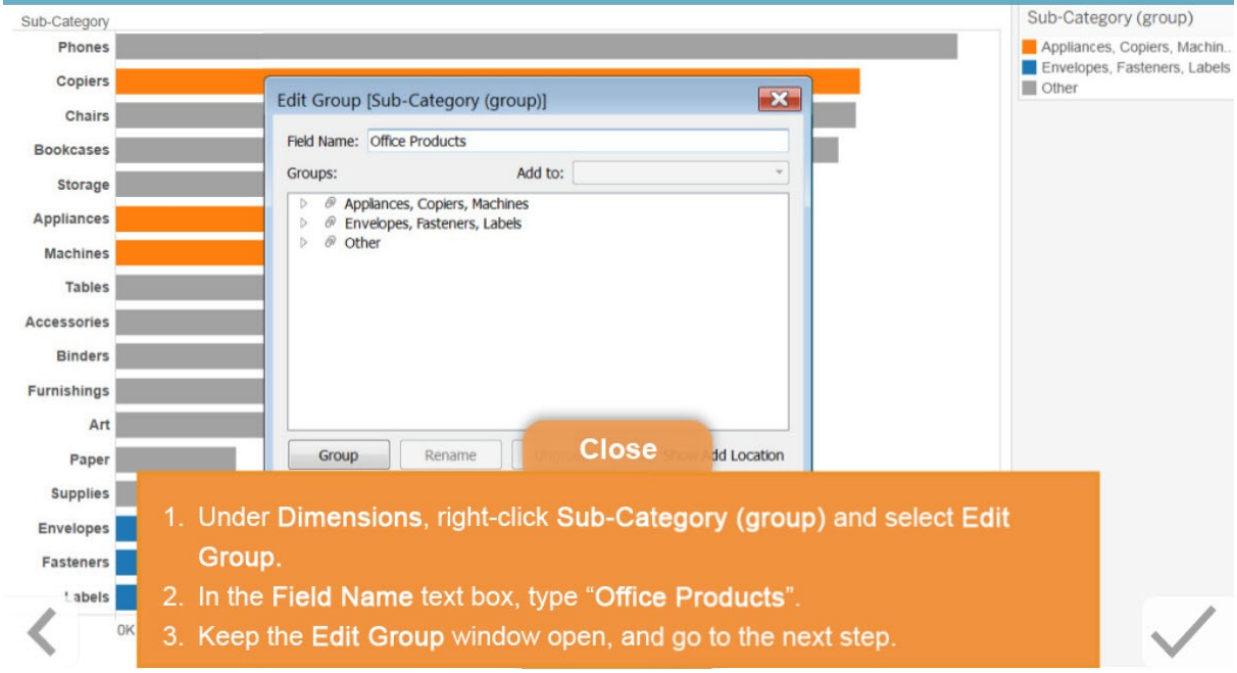
3 Group copiers, appliances, and machines.



Close

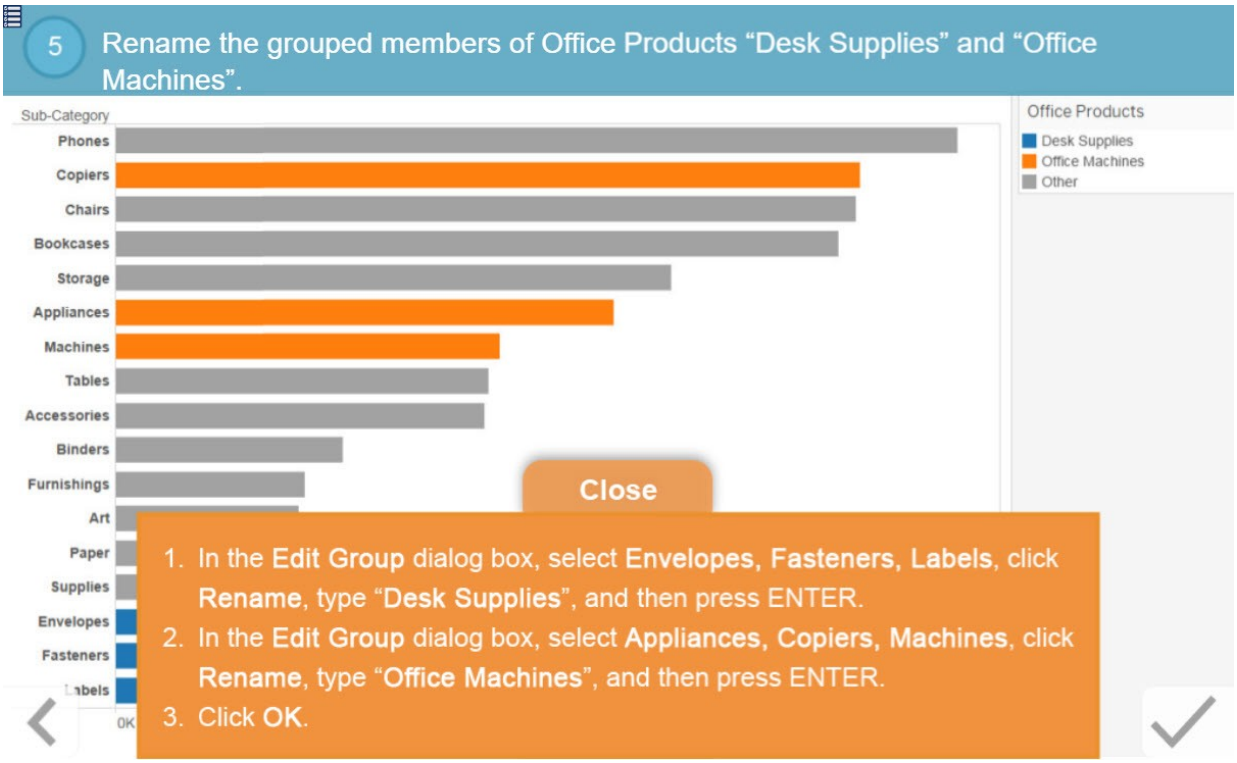
1. CTRL + click the bars representing **Copiers**, **Appliances**, and **Machines**.
2. Right-click the selected bars and select **Group**.
3. Click the empty (white) space in the view to unselect the bars.
4. Notice the color change of the bars.

4 Rename Sub-Category (group) “Office Products”.



Close

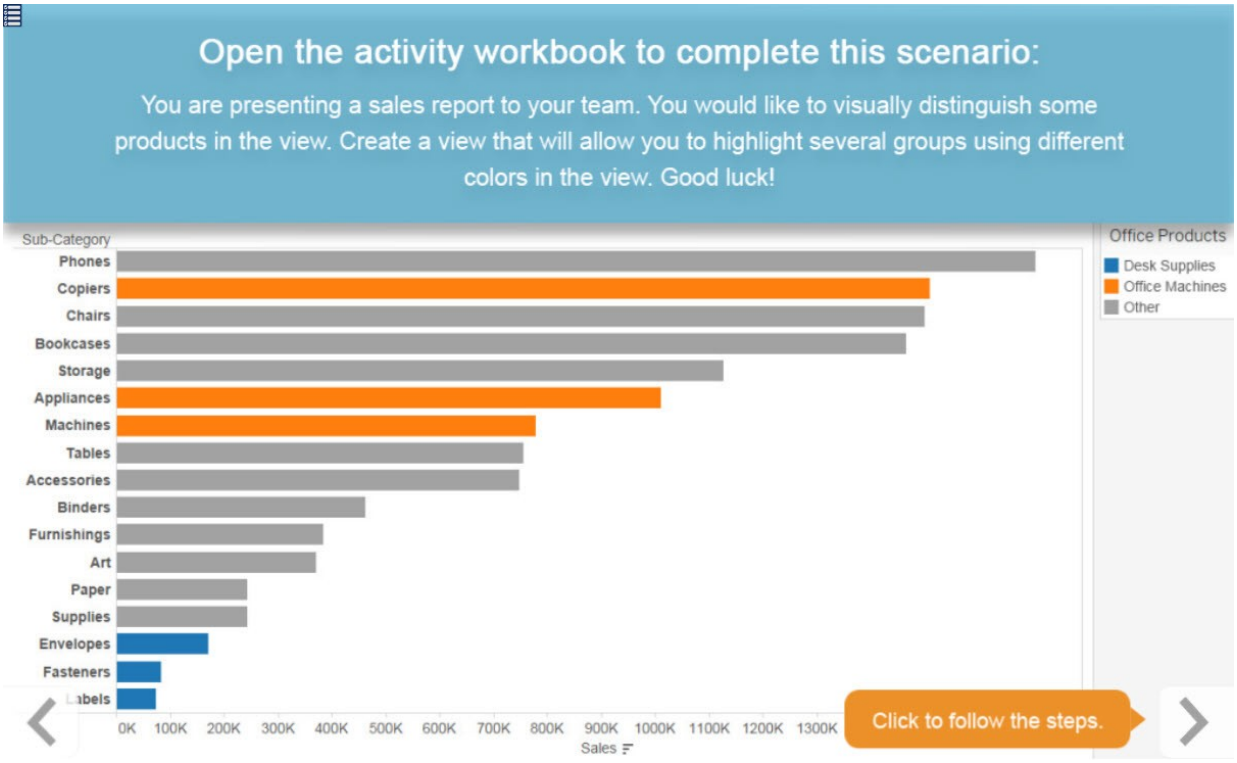
1. Under **Dimensions**, right-click **Sub-Category (group)** and select **Edit Group**.
2. In the **Field Name** text box, type “**Office Products**”.
3. Keep the **Edit Group** window open, and go to the next step.


5
Rename the grouped members of Office Products “Desk Supplies” and “Office Machines”.
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Office Products
Desk Supplies
Office Machines
Other
Close
1. In the Edit Group dialog box, select Envelopes, Fasteners, Labels, click Rename, type “Desk Supplies”, and then press ENTER.
2. In the Edit Group dialog box, select Appliances, Copiers, Machines, click Rename, type “Office Machines”, and then press ENTER.
3. Click OK.

Create Visual Groups

Highlight several groups using colors in the view.

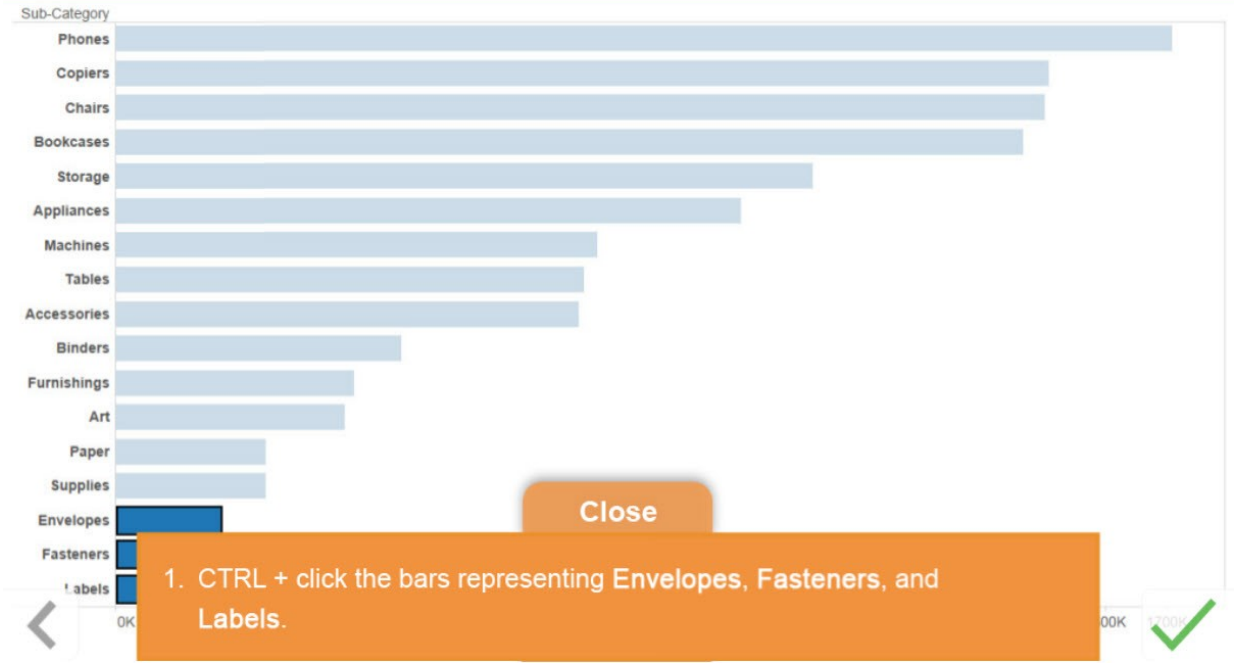
Start

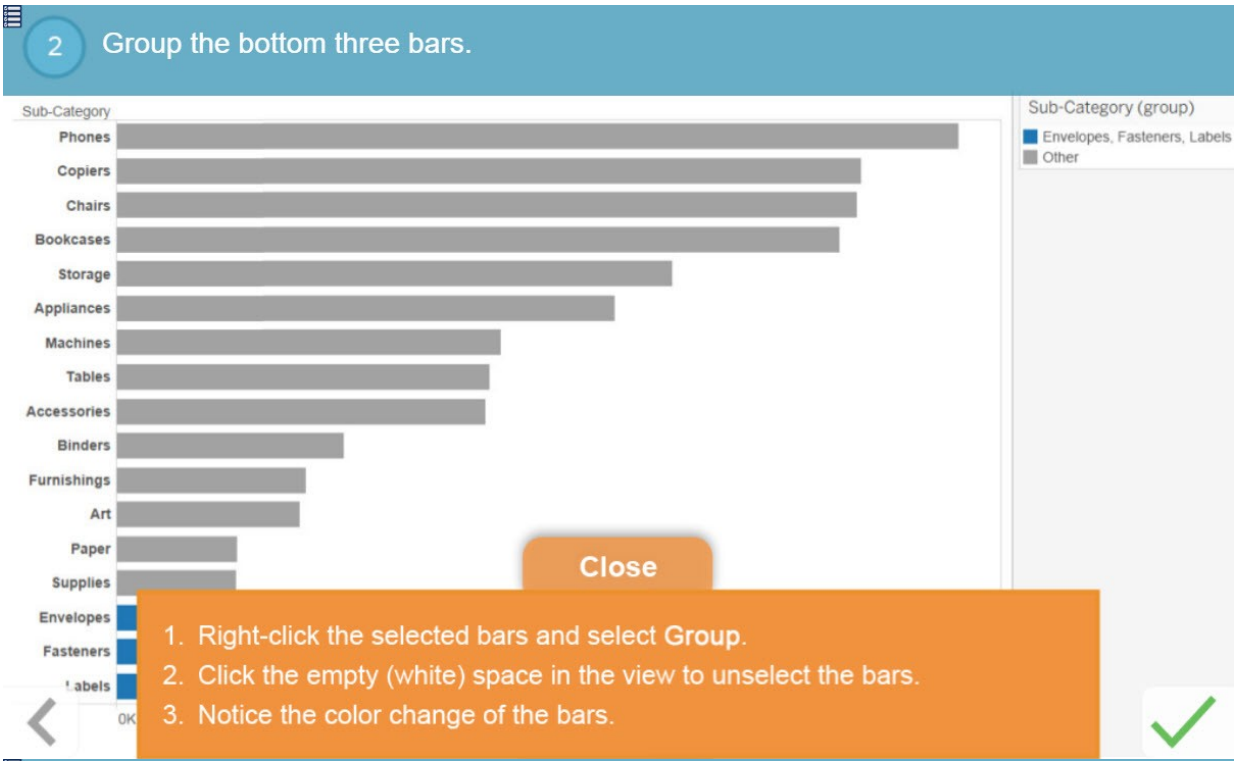


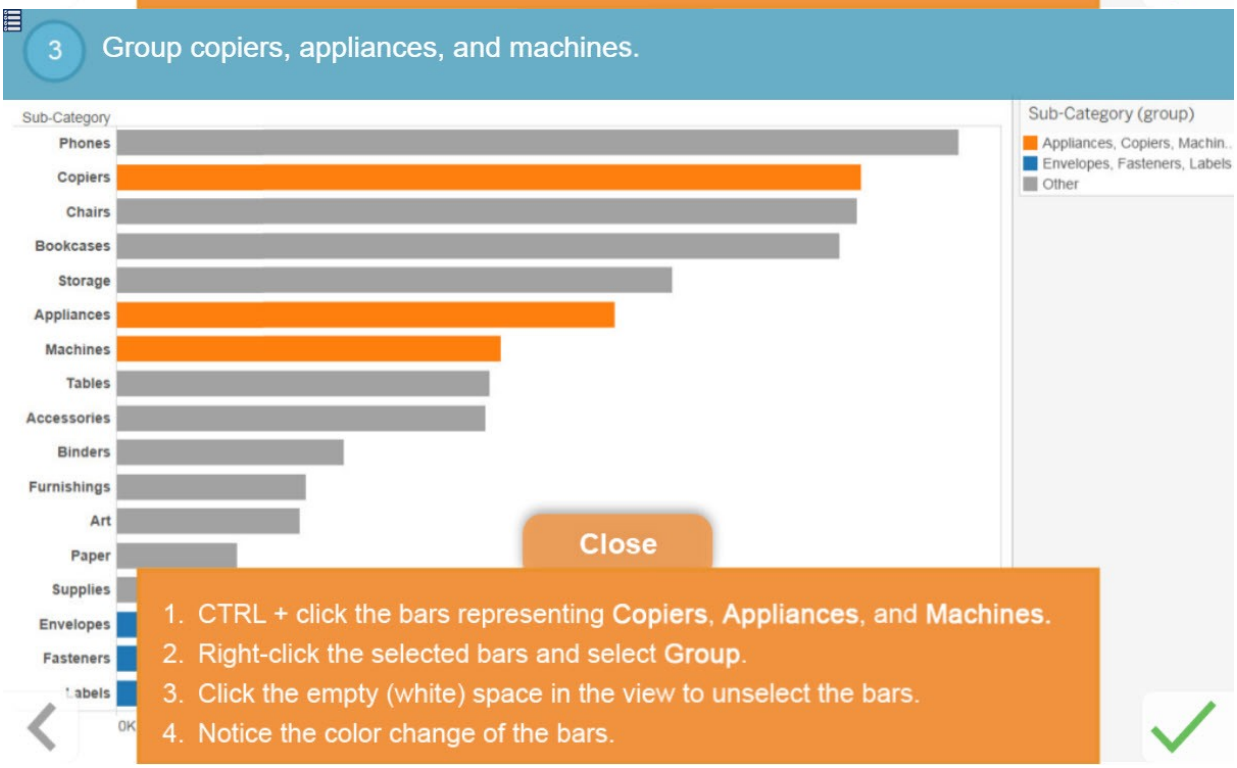
1. Select the bottom three bars in the view.
2. Group the bottom three bars.
3. Group copiers, appliances, and machines.
4. Rename Sub-Category (group) “Office Products”.
5. Rename the grouped members of Office Products “Desk Supplies” and “Office Machines”.

For help, click a step. Click the check mark when you’ve finished a step.

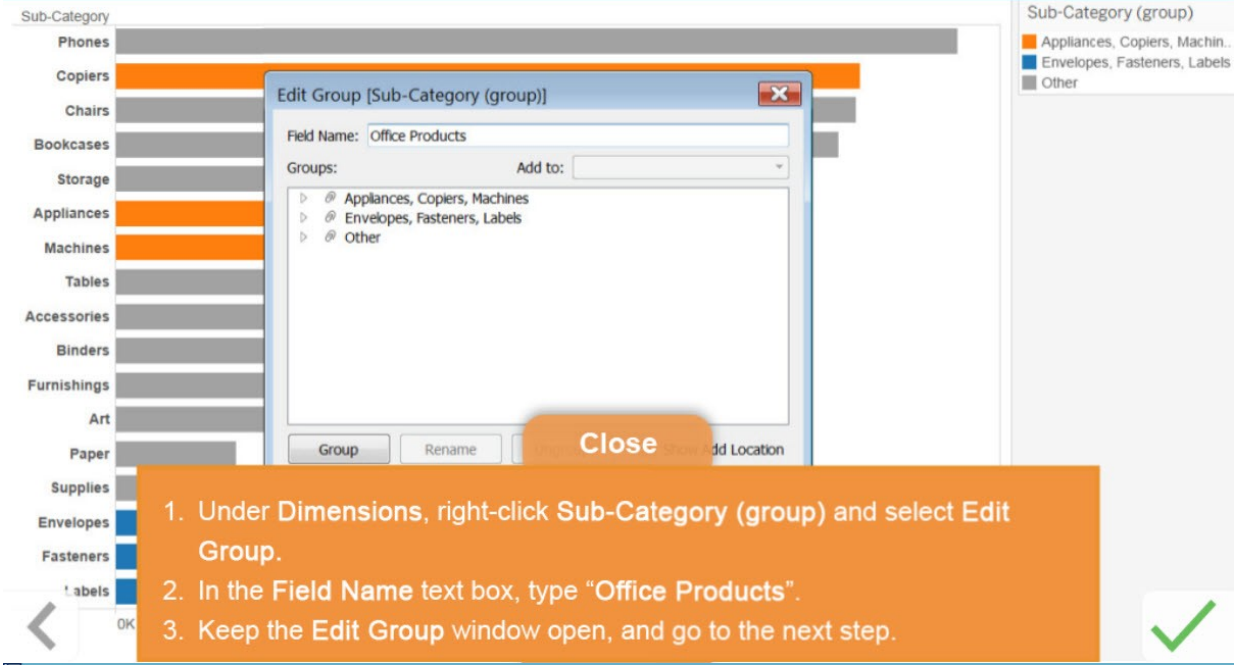
1 Select the bottom three bars in the view.




2
Group the bottom three bars.
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Labels
Sub-Category (group)
Envelopes, Fasteners, Labels
Other
Close
1. Right-click the selected bars and select Group.
2. Click the empty (white) space in the view to unselect the bars.
3. Notice the color change of the bars.

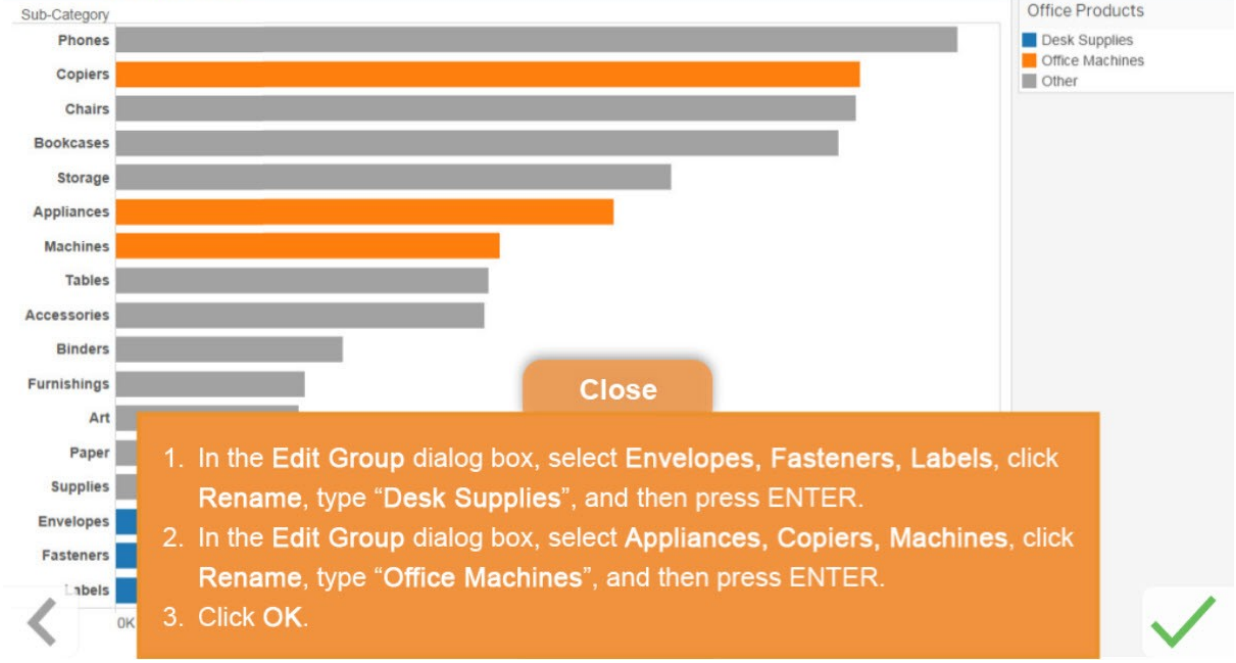

3
Group copiers, appliances, and machines.
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Labels
Sub-Category (group)
Appliances, Copiers, Machin..
Envelopes, Fasteners, Labels
Other
Close
1. CTRL + click the bars representing Copiers, Appliances, and Machines.
2. Right-click the selected bars and select Group.
3. Click the empty (white) space in the view to unselect the bars.
4. Notice the color change of the bars.

4 Rename Sub-Category (group) “Office Products”.



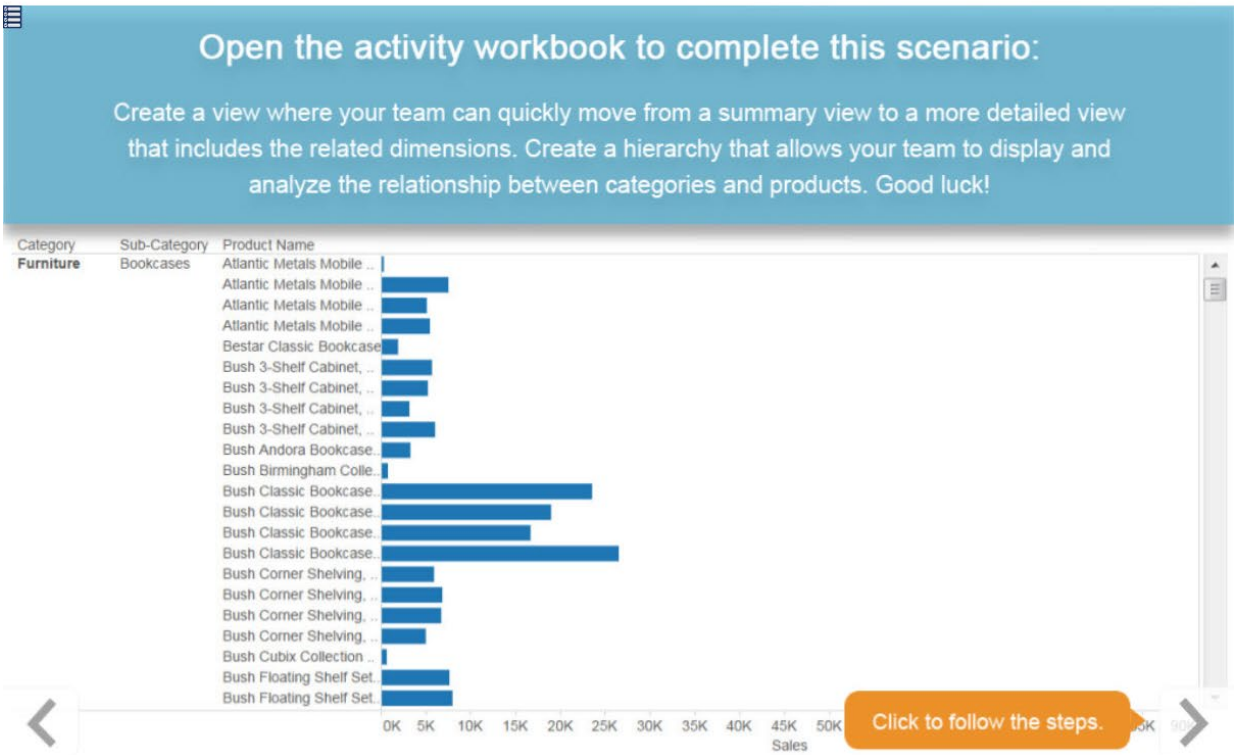
1. Under **Dimensions**, right-click **Sub-Category (group)** and select **Edit Group**.
2. In the **Field Name** text box, type “**Office Products**”.
3. Keep the **Edit Group** window open, and go to the next step.

5 Rename the grouped members of Office Products “Desk Supplies” and “Office Machines”.



1. In the **Edit Group** dialog box, select **Envelopes, Fasteners, Labels**, click **Rename**, type “**Desk Supplies**”, and then press ENTER.
2. In the **Edit Group** dialog box, select **Appliances, Copiers, Machines**, click **Rename**, type “**Office Machines**”, and then press ENTER.
3. Click **OK**.


Create a Hierarchy
Use a hierarchy to help analyze dimension data.
Start


Open the activity workbook to complete this scenario:
Create a view where your team can quickly move from a summary view to a more detailed view that includes the related dimensions. Create a hierarchy that allows your team to display and analyze the relationship between categories and products. Good luck!
Category
Sub-Category
Product Name
Furniture
Bookcases
Atlantic Metals Mobile ...
Atlantic Metals Mobile ...
Atlantic Metals Mobile ...
Atlantic Metals Mobile ...
Bestar Classic Bookcase
Bush 3-Shelf Cabinet, ...
Bush 3-Shelf Cabinet, ...
Bush 3-Shelf Cabinet, ...
Bush 3-Shelf Cabinet, ...
Bush Andora Bookcase...
Bush Birmingham Colle...
Bush Classic Bookcase...
Bush Classic Bookcase...
Bush Classic Bookcase...
Bush Classic Bookcase...
Bush Corner Shelving, ...
Bush Corner Shelving, ...
Bush Corner Shelving, ...
Bush Corner Shelving, ...
Bush Cubix Collection ...
Bush Floating Shelf Set...
Bush Floating Shelf Set...
0K 5K 10K 15K 20K 25K 30K 35K 40K 45K 50K
Sales
Click to follow the steps.

1. Create a hierarchy, called Products, with Category and Sub-Category.

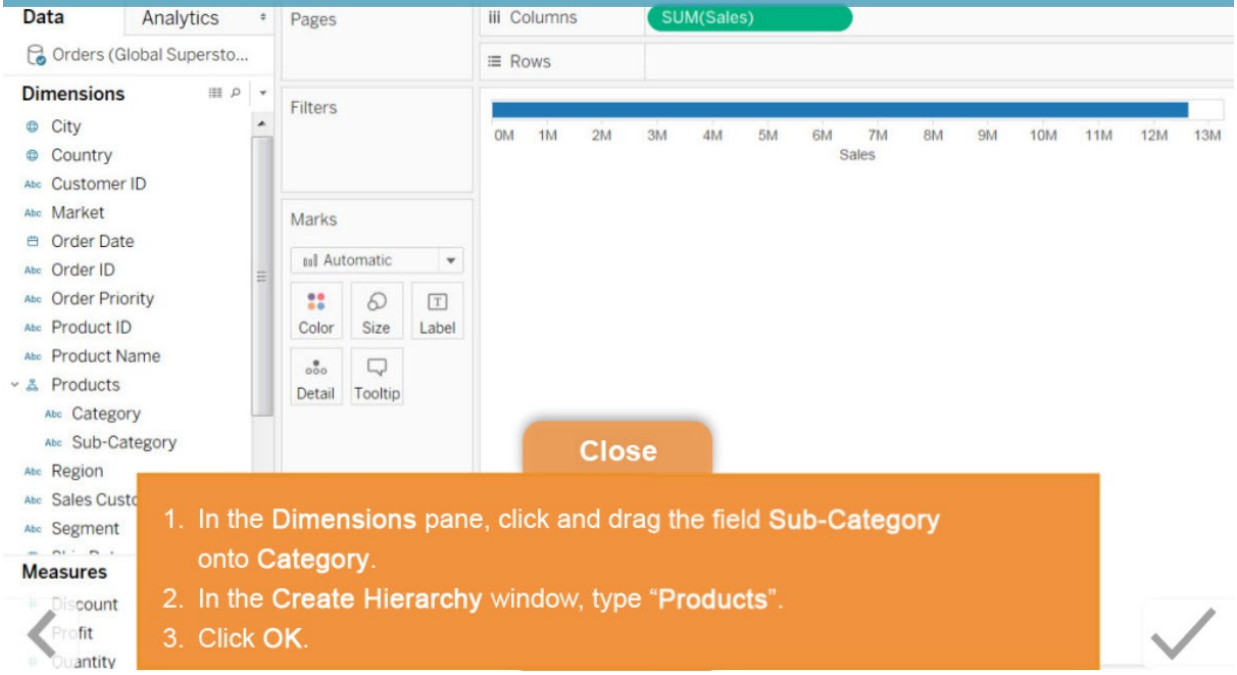
2. Add Product Name to the Products hierarchy.

3. Add the Products hierarchy to the view.

4. Drill down to the lowest level of detail.

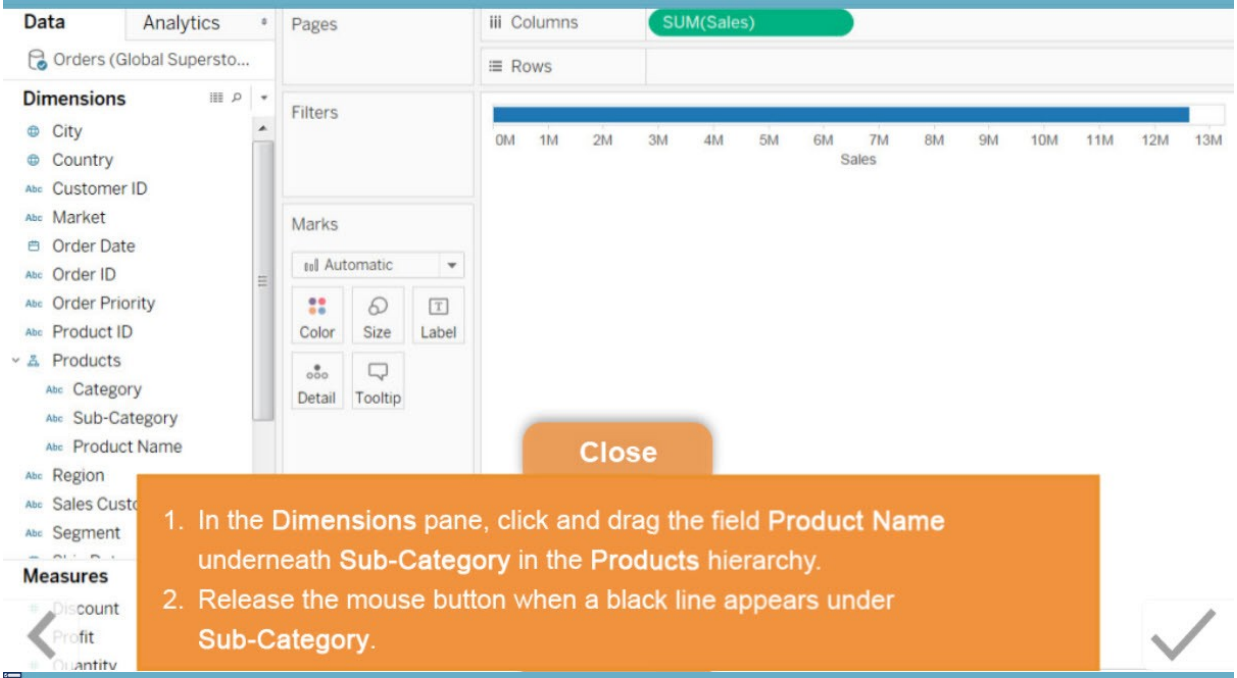
For help, click a step. Click the check mark when you've finished a step.

1. Create a hierarchy, called Products, with Category and Sub-Category.



1. In the **Dimensions** pane, click and drag the field **Sub-Category** onto **Category**.
2. In the **Create Hierarchy** window, type "**Products**".
3. Click **OK**.

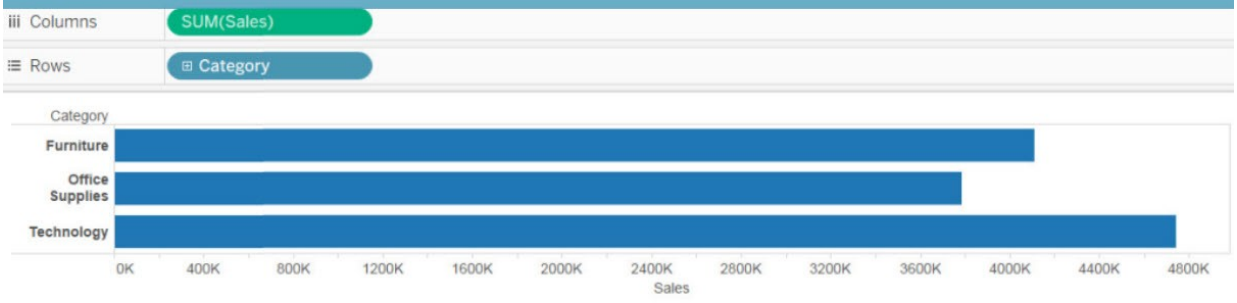
2 Add Product Name to the Products hierarchy.



Close

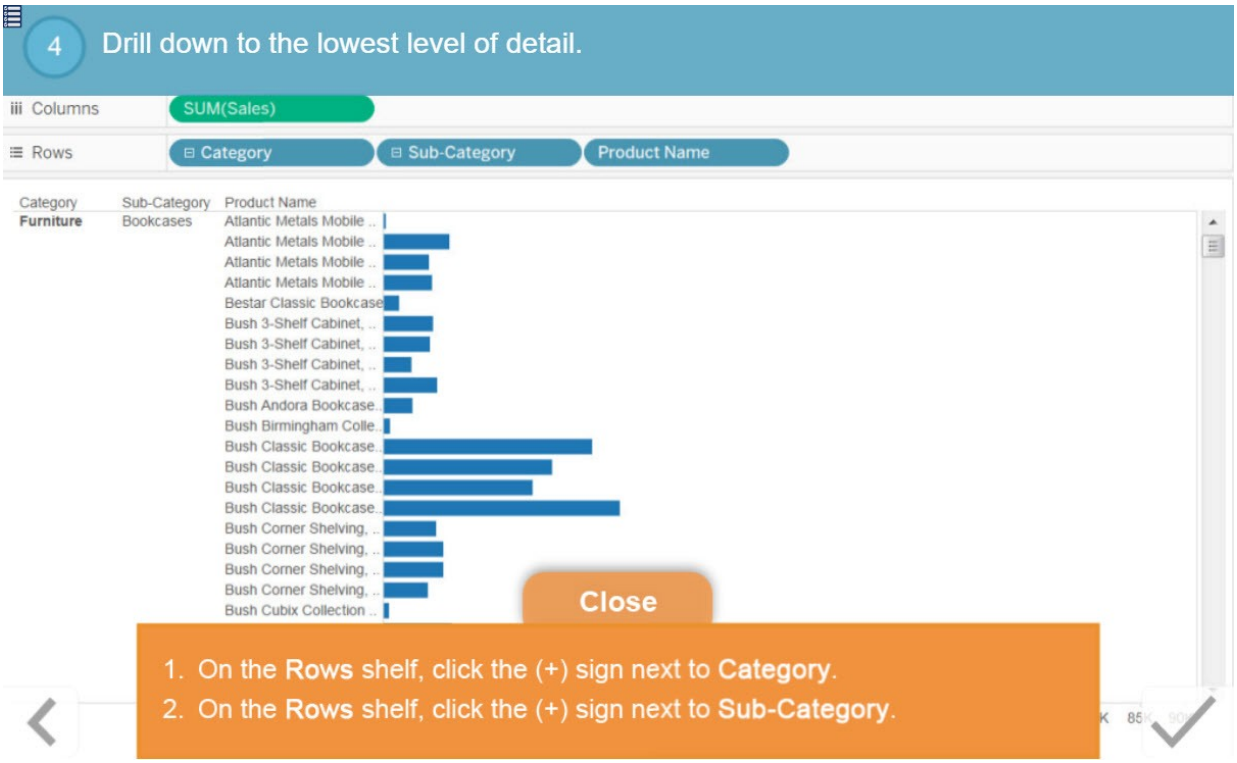
1. In the **Dimensions** pane, click and drag the field **Product Name** underneath **Sub-Category** in the **Products** hierarchy.
2. Release the mouse button when a black line appears under **Sub-Category**.

3 Add the Products hierarchy to the view.



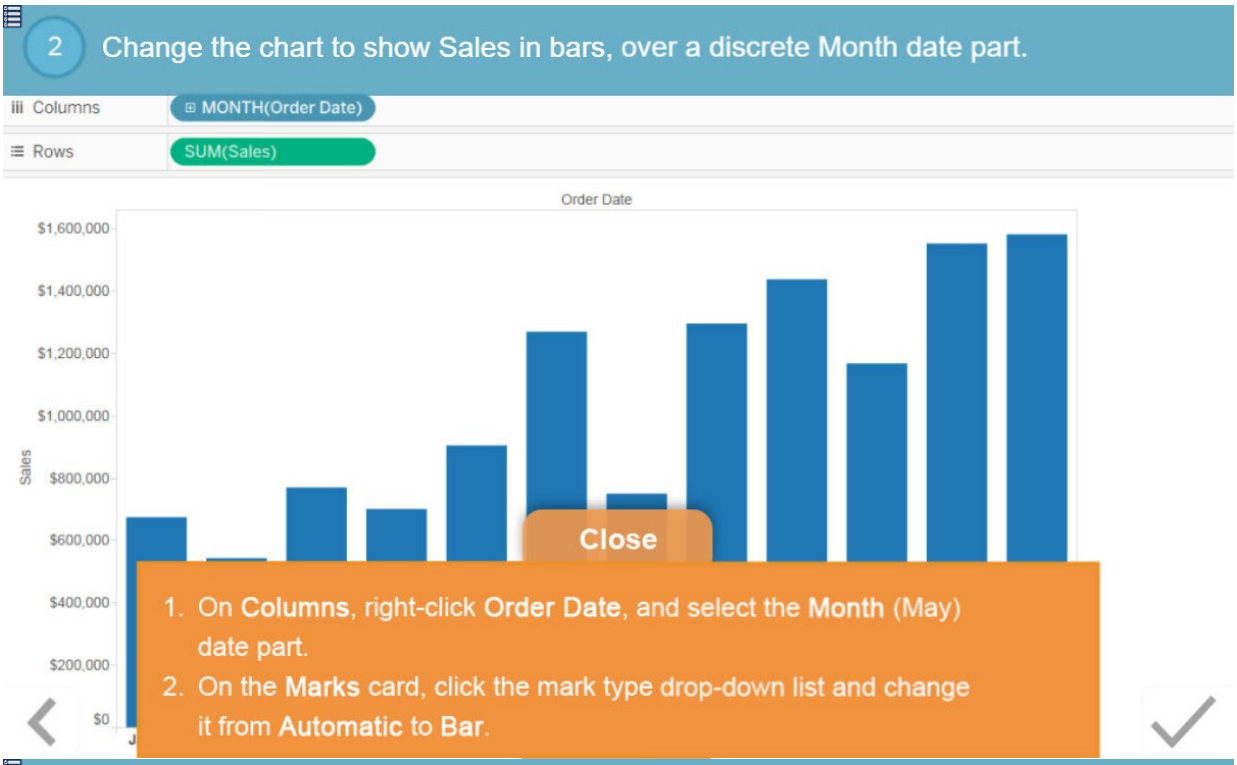
Close

1. From **Dimensions**, drag the newly created **Products** hierarchy to the **Rows** shelf.
2. Notice that the **Products** hierarchy is displayed as "**+Category**" on the Rows shelf, and that Category is the first field listed in the hierarchy.

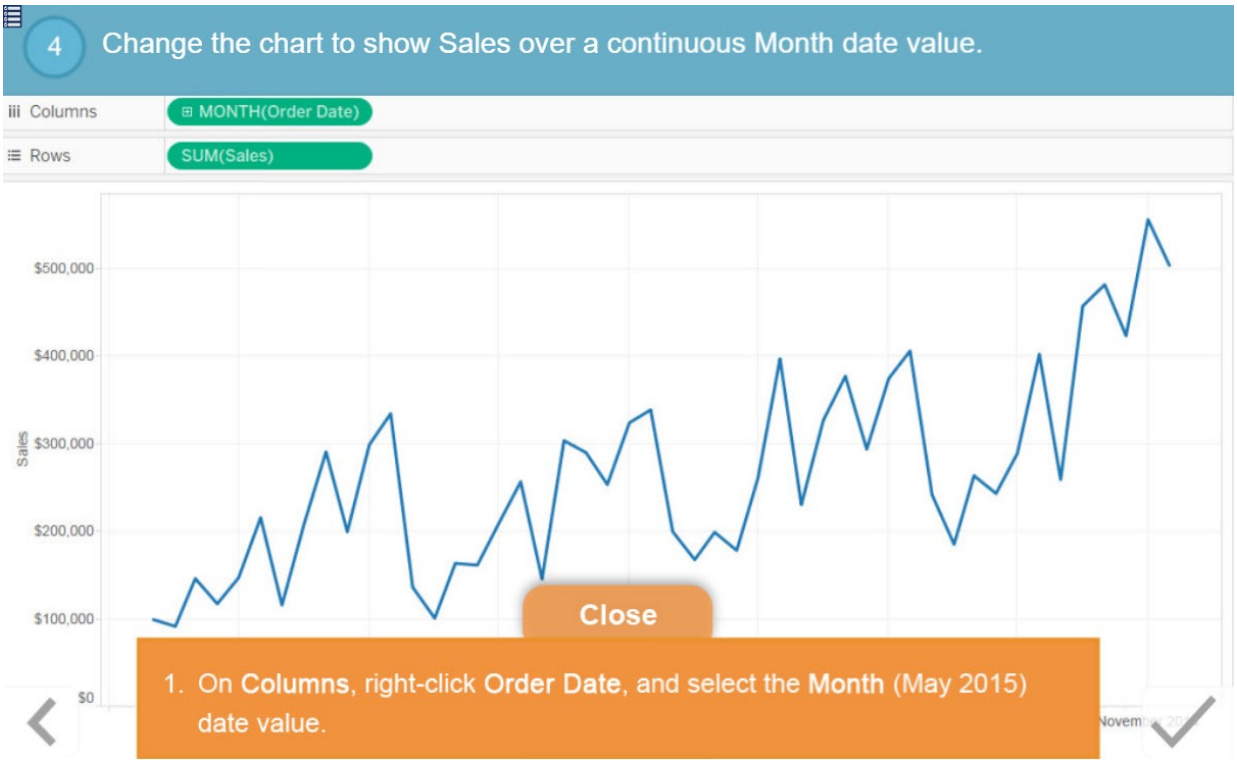

4
Drill down to the lowest level of detail.
Columns
SUM(Sales)
Rows
Category
Sub-Category
Product Name
Category
Sub-Category
Product Name
Furniture
Bookcases
Atlantic Metals Mobile ..
Atlantic Metals Mobile ..
Atlantic Metals Mobile ..
Atlantic Metals Mobile ..
Bestar Classic Bookcase
Bush 3-Shelf Cabinet, ..
Bush 3-Shelf Cabinet, ..
Bush 3-Shelf Cabinet, ..
Bush 3-Shelf Cabinet, ..
Bush Andora Bookcase..
Bush Birmingham Colle..
Bush Classic Bookcase..
Bush Classic Bookcase..
Bush Classic Bookcase..
Bush Classic Bookcase..
Bush Corner Shelving, ..
Bush Corner Shelving, ..
Bush Corner Shelving, ..
Bush Corner Shelving, ..
Bush Cubix Collection ..
Close
1. On the Rows shelf, click the (+) sign next to Category.
2. On the Rows shelf, click the (+) sign next to Sub-Category.

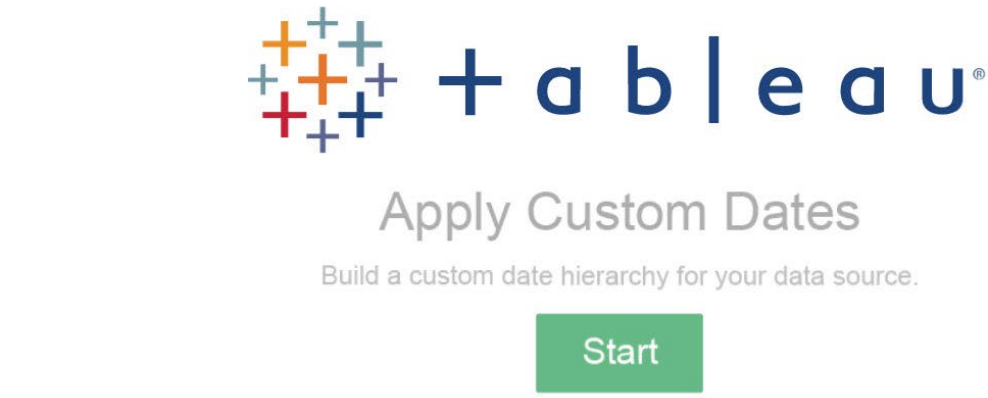

Show Data Across Discrete and Continuous Months
Compare the difference between discrete and continuous dates.
Start
Sheet 1
Order Date
Sales
January
February
March
April
May
June
July
August
September
October
November
December
Sheet 2
Month of Order Date
Open the activity workbook to complete this scenario:
You want to compare two ways of viewing sales over time.
In one view, you'll show sales over discrete months as a bar chart.
In another view, you'll show sales over continuous months as a line chart.
Good luck!

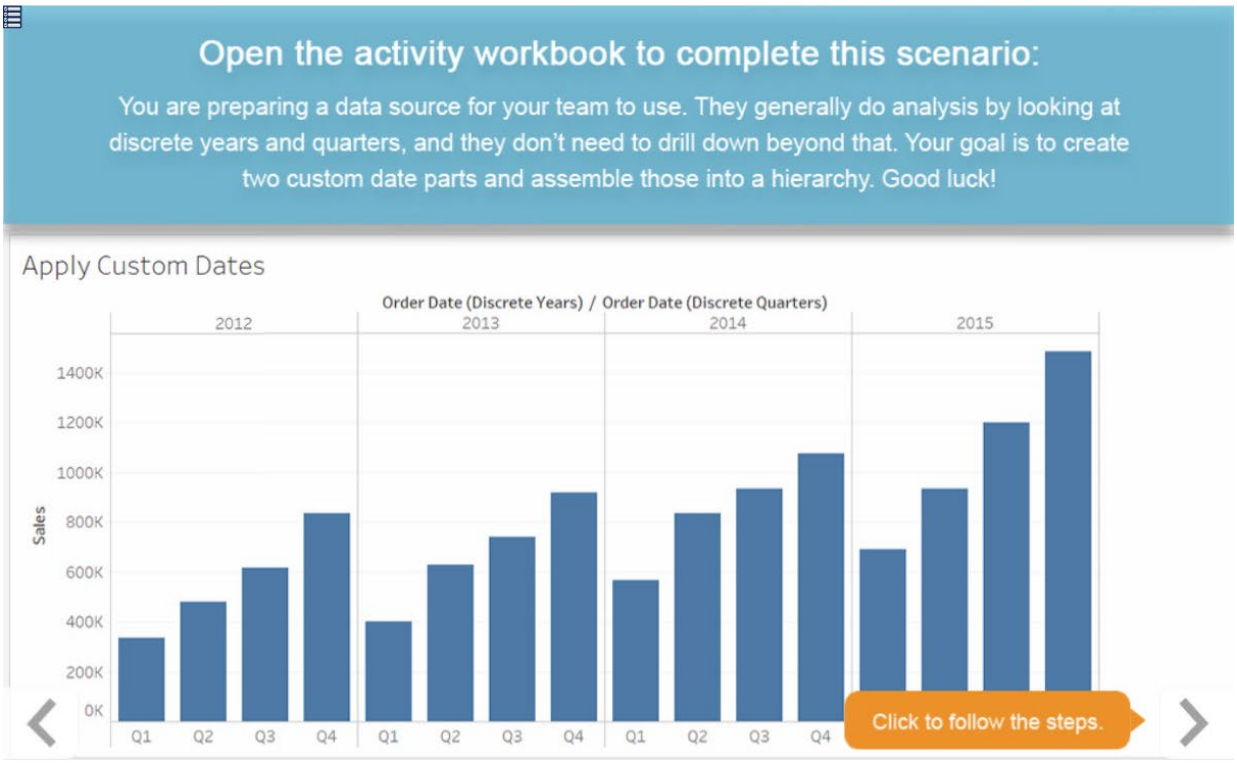

1
On Sheet 1, create a chart showing Sales over Order Date.
2
Change the chart to show Sales in bars, over a discrete Month date part.
3
On Sheet 2, once again, create a chart showing Sales over Order Date.
4
Change the chart to show Sales over a continuous Month date value.
For help, click a step. Click the check mark when you've finished a step.
1
On Sheet 1, create a chart showing Sales over Order Date.
Columns
YEAR(Order Date)
Rows
SUM(Sales)
Order Date
$4,500,000
$4,000,000
$3,500,000
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Sales
Close
1. Verify that Sheet 1 is selected.
2. From Measures, drag Sales to Rows.
3. From Dimensions, drag Order Date to Columns.


2
Change the chart to show Sales in bars, over a discrete Month date part.
Columns
MONTH(Order Date)
Rows
SUM(Sales)
Order Date
$1,600,000
$1,400,000
$1,200,000
$1,000,000
$800,000
$600,000
$400,000
$200,000
$0
Sales
Close
1. On Columns, right-click Order Date, and select the Month (May) date part.
2. On the Marks card, click the mark type drop-down list and change it from Automatic to Bar.


3
On Sheet 2, once again, create a chart showing Sales over Order Date.
Columns
YEAR(Order Date)
Rows
SUM(Sales)
Order Date
$4,500,000
$4,000,000
$3,500,000
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Sales
Close
1. Select Sheet 2.
2. From Measures, drag Sales to Rows.
3. From Dimensions, drag Order Date to Columns.

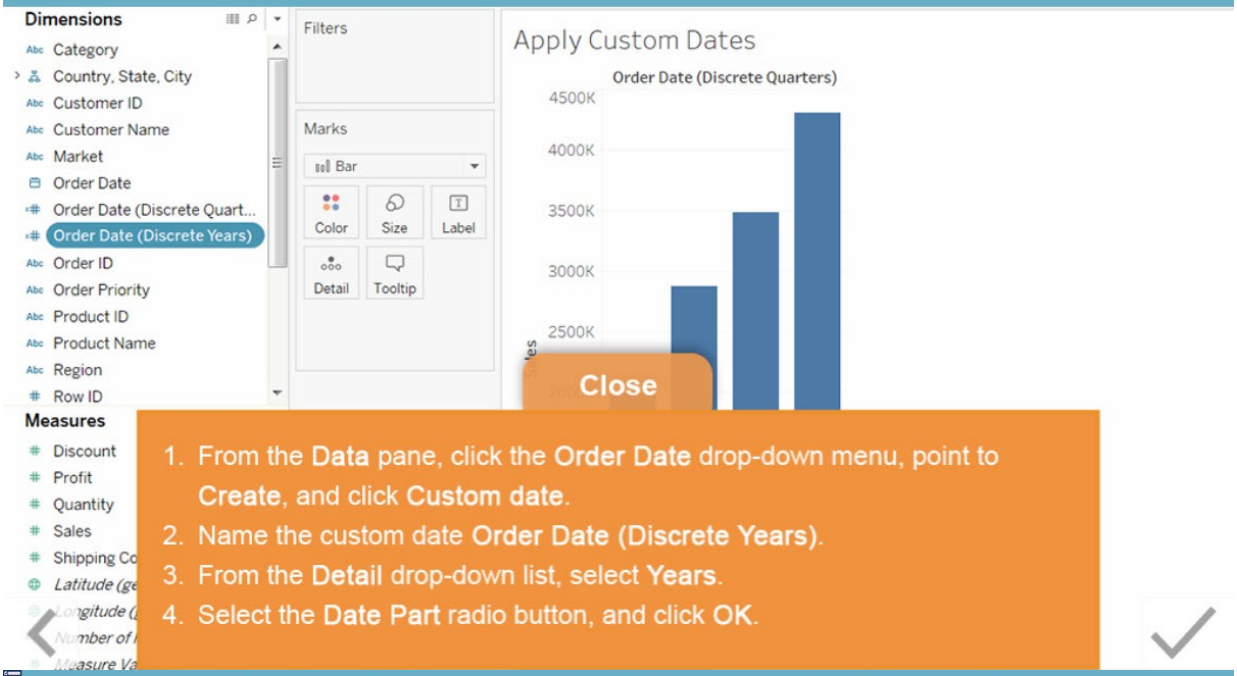

4
Change the chart to show Sales over a continuous Month date value.
Columns
MONTH(Order Date)
Rows
SUM(Sales)
$500,000
$400,000
$300,000
$200,000
$100,000
$0
Sales
Close
1. On Columns, right-click Order Date, and select the Month (May 2015) date value.


Apply Custom Dates
Build a custom date hierarchy for your data source.
Start


Open the activity workbook to complete this scenario:
You are preparing a data source for your team to use. They generally do analysis by looking at discrete years and quarters, and they don't need to drill down beyond that. Your goal is to create two custom date parts and assemble those into a hierarchy. Good luck!
Apply Custom Dates
Order Date (Discrete Years) / Order Date (Discrete Quarters)
2012
2013
2014
2015
Sales
1400K
1200K
1000K
800K
600K
400K
200K
0K
Q1
Q2
Q3
Q4
Click to follow the steps.

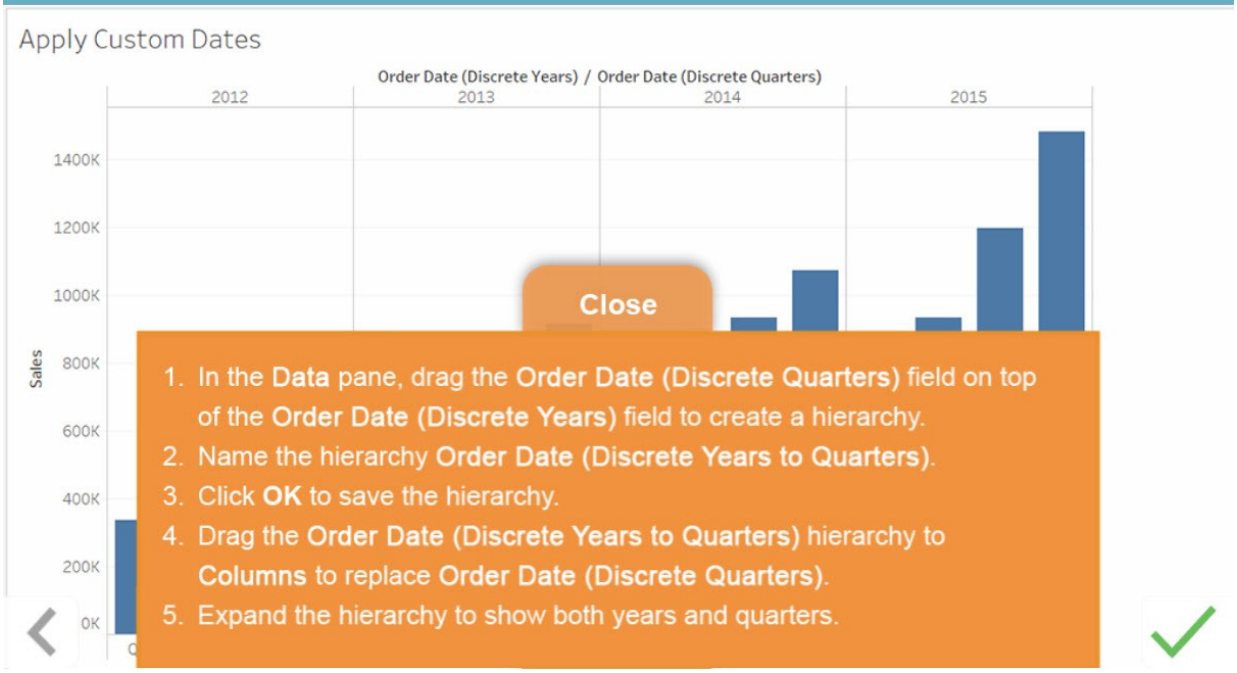

Order Date (Discrete Years) / Order Date (Discrete Quarters)
2012
2013
2014
2015
1
Create a Discrete Quarters custom date field, and use it to show quarterly sales as a bar chart.
2
Create a Discrete Years custom date field.
3
Create a hierarchy with the custom date fields, and replace Discrete Quarters in the view.
Sales
1200K
600K
400K
200K
0K
For help, click a step. Click the check mark when you've finished a step.
1
Create a Discrete Quarters custom date field, and use it to show quarterly sales as a bar chart.
Apply Custom Dates
Order Date (Discrete Quarters)
4500K
4000K
3500K
3000K
2500K
2000K
1500K
1000K
500K
0K
Sales
Close
1. From the Data pane, click the Order Date drop-down menu, point to Create, and click Custom date.
2. Name the custom date Order Date (Discrete Quarters).
3. From the Detail drop-down list, select Quarters.
4. Select the Date Part radio button, and click OK.
5. Drag Sales to Rows, then drag Order Date (Discrete Quarters) to Columns.
6. Change the mark type to Bar.

2 Create a Discrete Years custom date field.



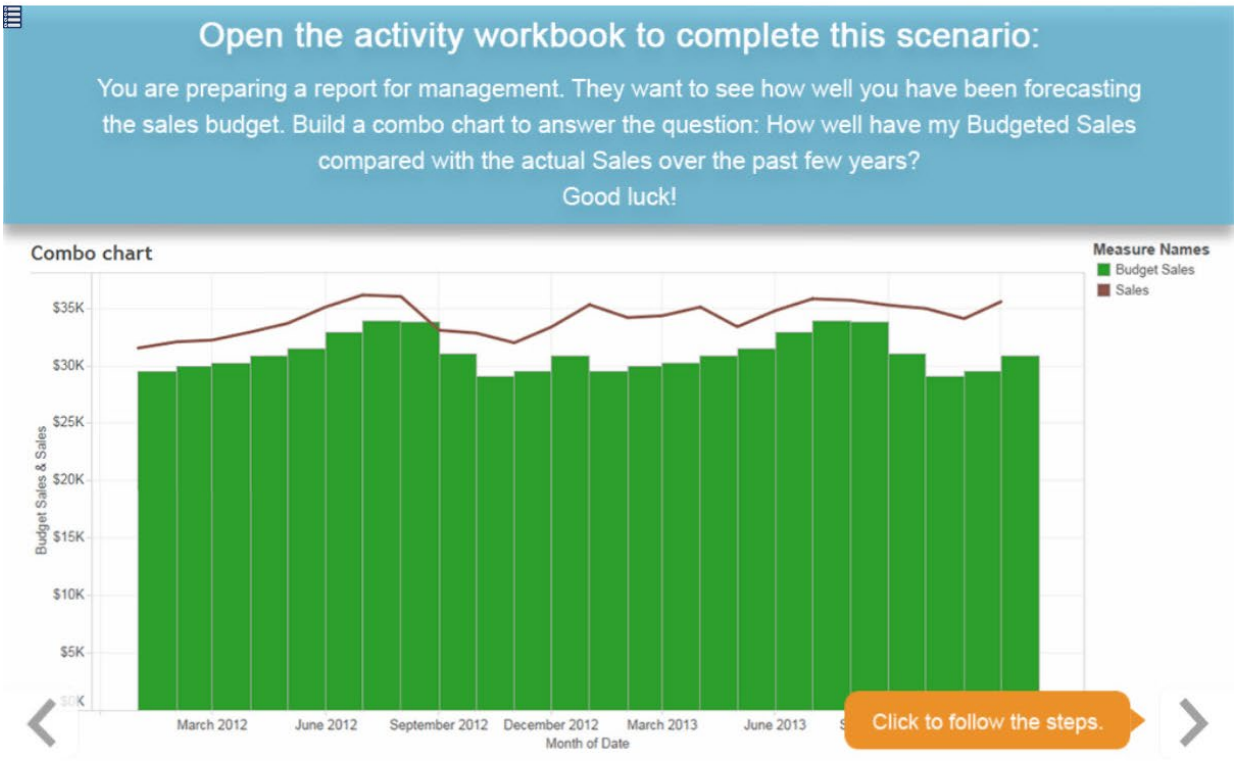
1. From the **Data** pane, click the **Order Date** drop-down menu, point to **Create**, and click **Custom date**.
2. Name the custom date **Order Date (Discrete Years)**.
3. From the **Detail** drop-down list, select **Years**.
4. Select the **Date Part** radio button, and click **OK**.

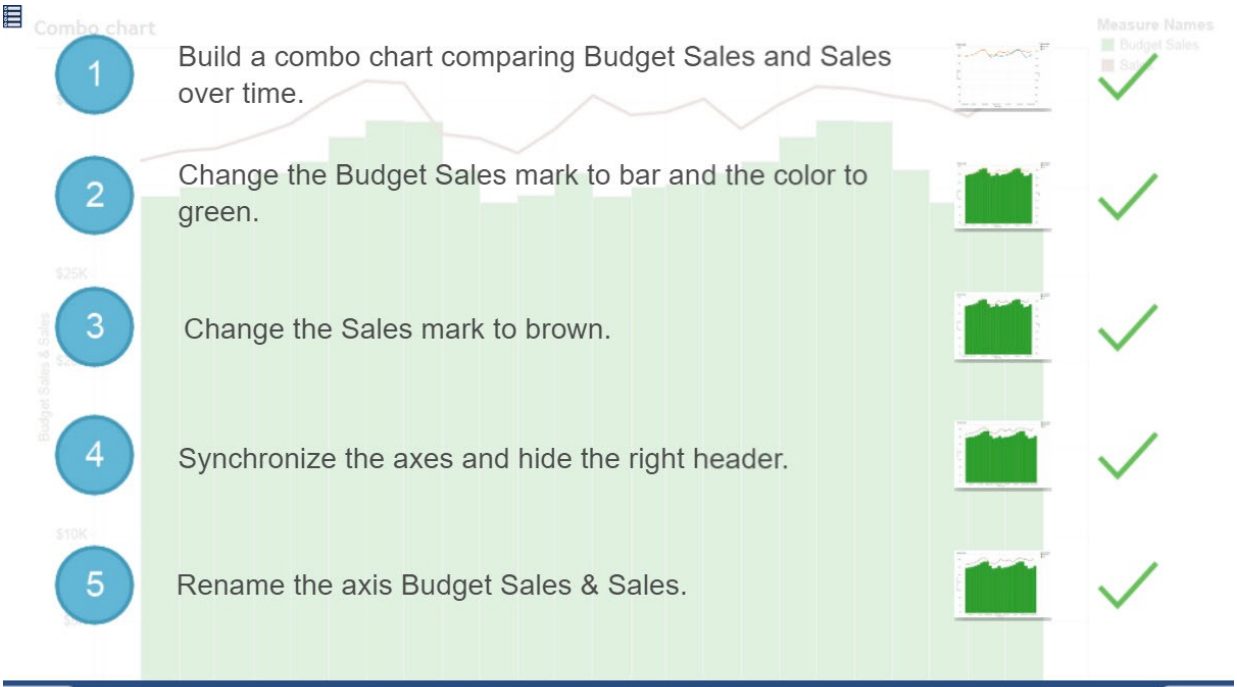
3 Create a hierarchy with the custom date fields, and replace Discrete Quarters in the view.

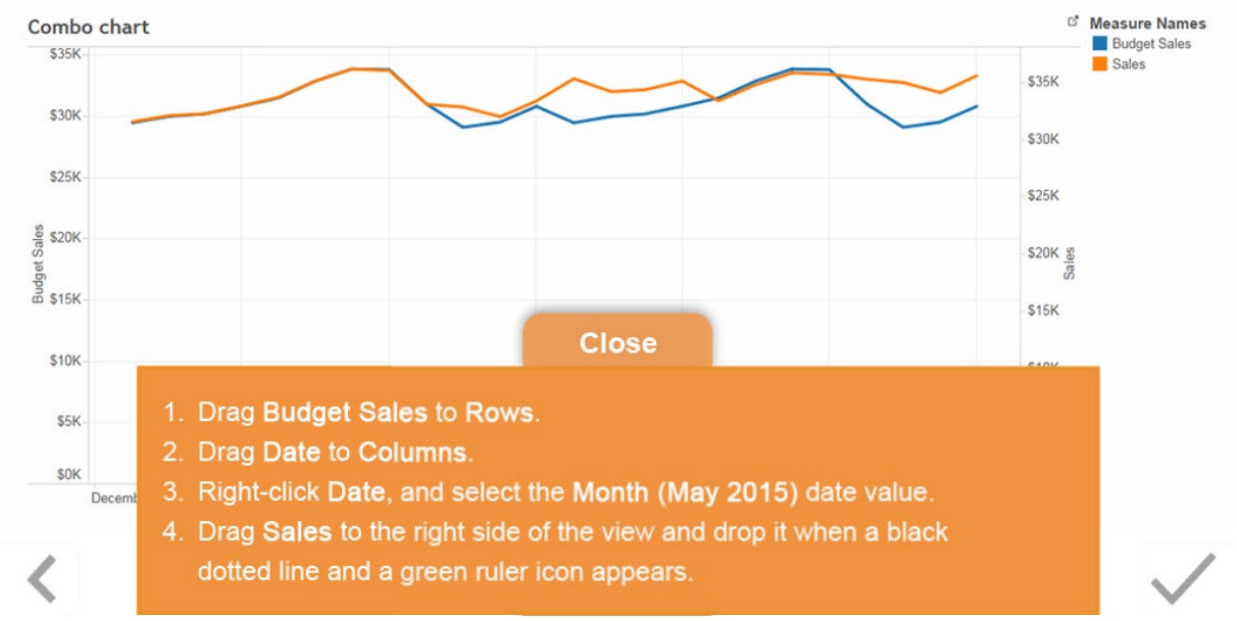


1. In the **Data** pane, drag the **Order Date (Discrete Quarters)** field on top of the **Order Date (Discrete Years)** field to create a hierarchy.
2. Name the hierarchy **Order Date (Discrete Years to Quarters)**.
3. Click **OK** to save the hierarchy.
4. Drag the **Order Date (Discrete Years to Quarters)** hierarchy to **Columns** to replace **Order Date (Discrete Quarters)**.
5. Expand the hierarchy to show both years and quarters.


Build a Combo Chart
Create a combo chart with multiple marks.
Start


Open the activity workbook to complete this scenario:
You are preparing a report for management. They want to see how well you have been forecasting the sales budget. Build a combo chart to answer the question: How well have my Budgeted Sales compared with the actual Sales over the past few years?
Good luck!
Combo chart
Measure Names
Budget Sales
Sales
$35K
$30K
$25K
$20K
$15K
$10K
$5K
Budget Sales & Sales
March 2012
June 2012
September 2012
December 2012
March 2013
June 2013
Month of Date
Click to follow the steps.

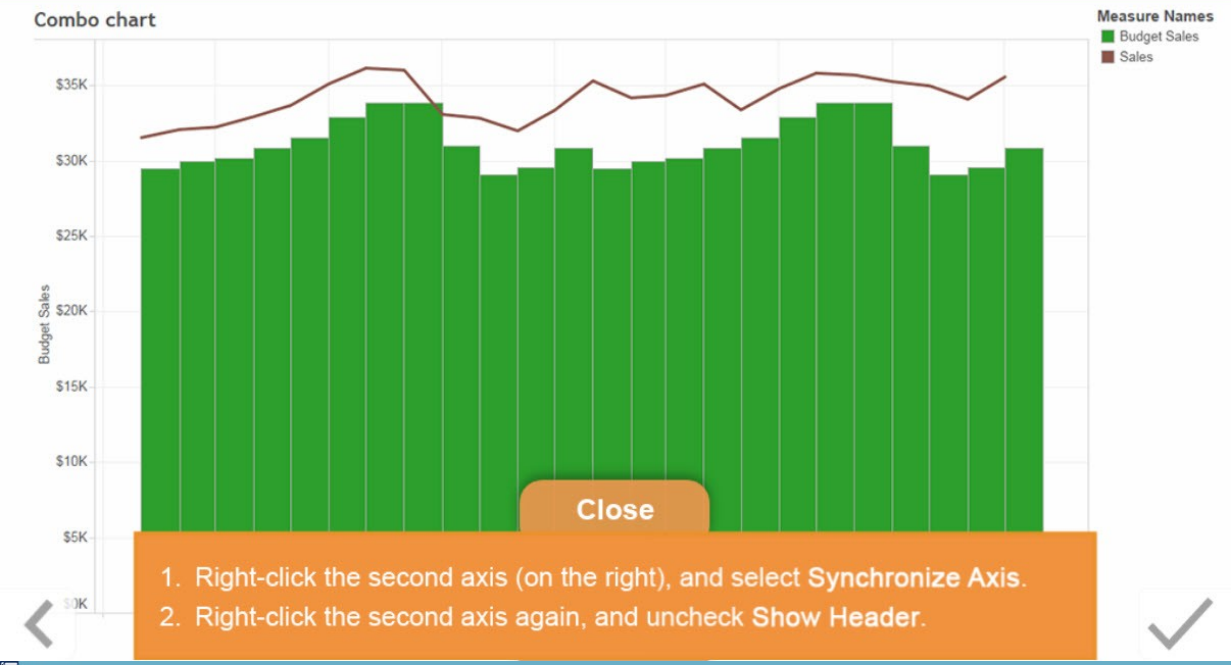

Combo chart
1
Build a combo chart comparing Budget Sales and Sales over time.
2
Change the Budget Sales mark to bar and the color to green.
3
Change the Sales mark to brown.
4
Synchronize the axes and hide the right header.
5
Rename the axis Budget Sales & Sales.
Measure Names
Budget Sales
For help, click a step. Click the check mark when you've finished a step.
1
Build a combo chart comparing Budget Sales and Sales over time.


Combo chart
Measure Names
Budget Sales
Sales
$35K
$30K
$25K
$20K
$15K
$10K
$5K
$0K
Budget Sales
Sales
Close
1. Drag Budget Sales to Rows.
2. Drag Date to Columns.
3. Right-click Date, and select the Month (May 2015) date value.
4. Drag Sales to the right side of the view and drop it when a black dotted line and a green ruler icon appears.

2 Change the Budget Sales mark to bar and the color to green.

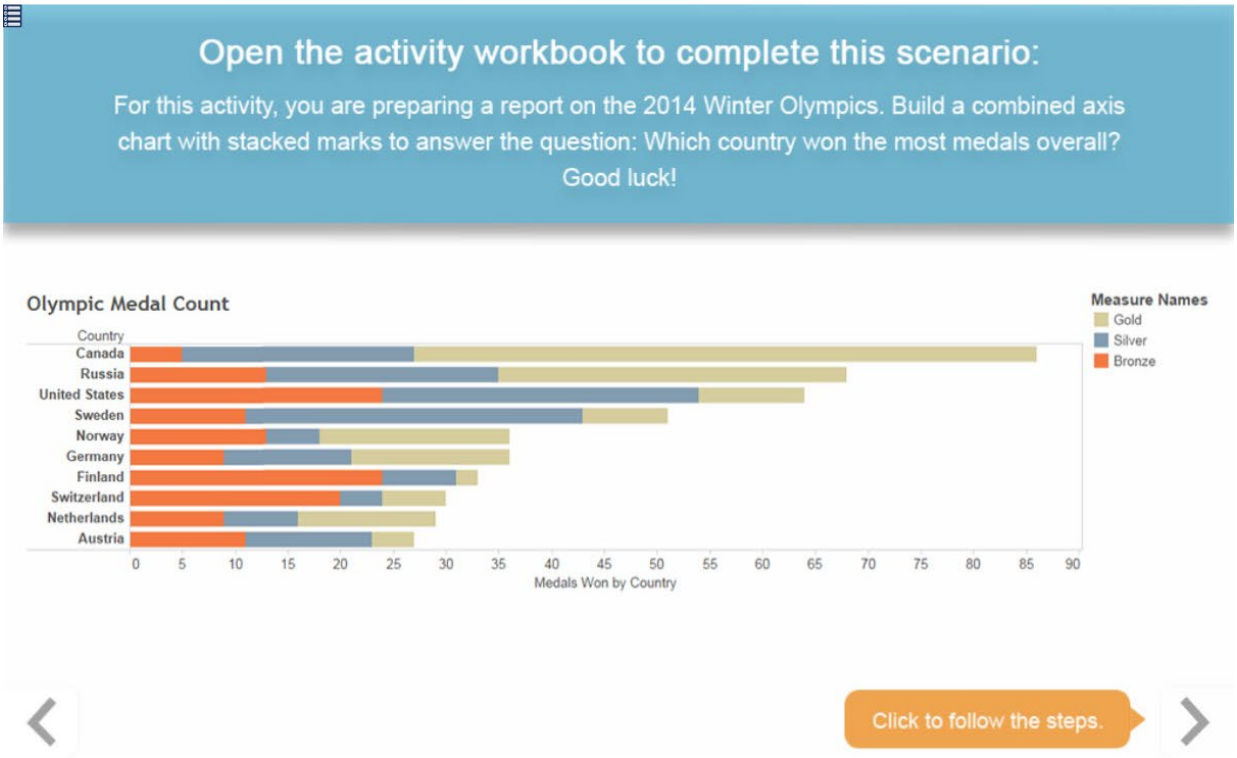
3 Change the Sales mark to brown.

4 Synchronize the axes and hide the right header.

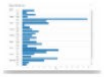


5 Rename the axis Budget Sales & Sales.


Build a Combined Axis Chart
Create a combined axis chart with stacked marks.
Start

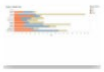

Open the activity workbook to complete this scenario:
For this activity, you are preparing a report on the 2014 Winter Olympics. Build a combined axis chart with stacked marks to answer the question: Which country won the most medals overall? Good luck!
Olympic Medal Count
Country
Canada
Russia
United States
Sweden
Norway
Germany
Finland
Switzerland
Netherlands
Austria
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90
Medals Won by Country
Measure Names
Gold
Silver
Bronze
Click to follow the steps.

1. Build a combined axis chart comparing medals by country.

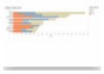


2. Change the view to stacked bar marks and edit all colors.

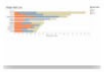
3. Reorder the Measure Names color legend to Gold, Silver, and then Bronze.



4. Sort the medal count in descending order.

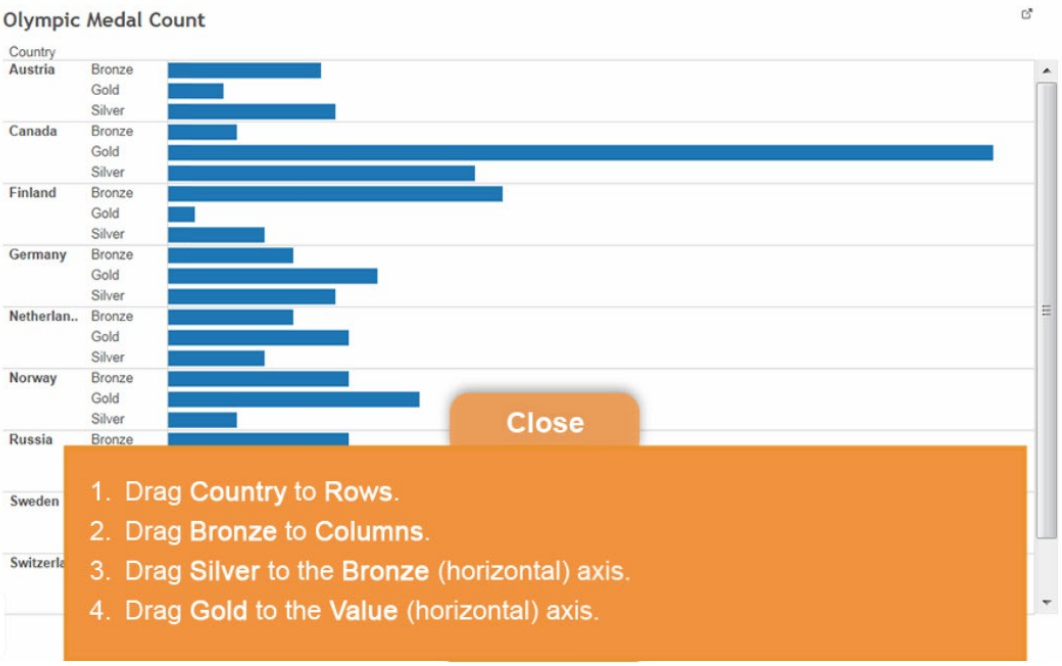


5. Change the name of the Value axis to “Medals Won by Country”.



For help, click a step. Click the check mark when you’ve finished a step.

1. Build a combined axis chart comparing medals by country.

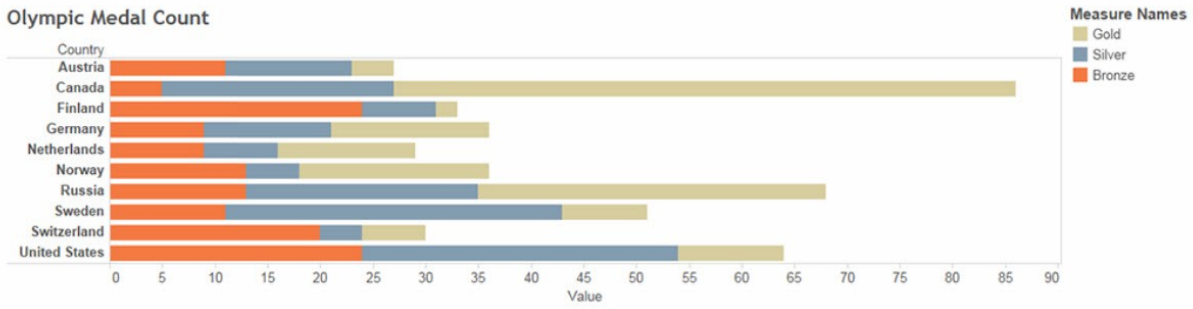


2 Change the view to stacked bar marks and edit all colors.

Close

1. Drag **Measure Names** from the **Rows** shelf to **Color** on the **Marks** card.
2. Click **Color** on the **Marks** card, and then click **Edit Colors**.
3. On the **Select Color Palette** menu, select **Miller Stone**.
4. Select the brighter **Orange** color for **Bronze**, the **Light Yellow** color for **Gold**, and the lighter **Blue** color for **Silver**.
5. Click **OK**.

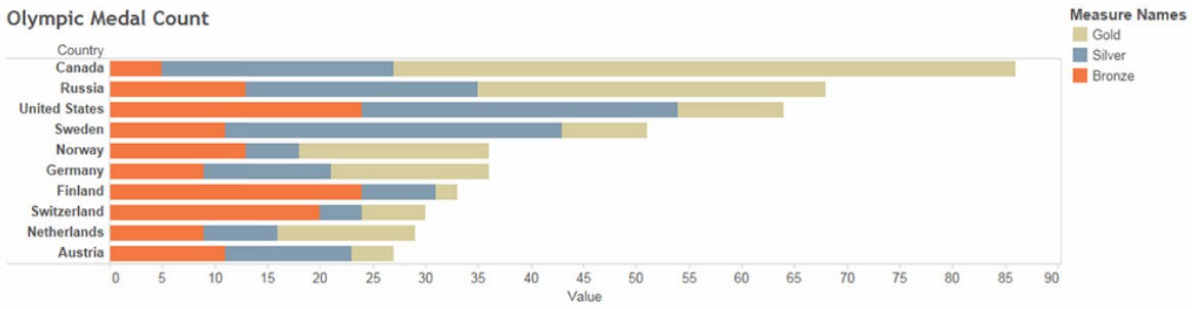
3 Reorder the Measure Names color legend to Gold, Silver, and then Bronze.



Close

1. In the **Measure Names** color legend, click and drag **Gold** to the top position.
2. In the **Measure Names** color legend, click and drag **Silver** to the middle position.

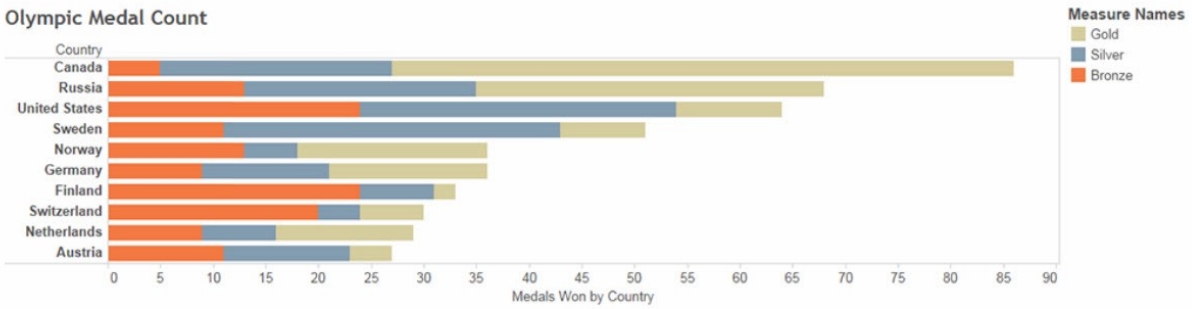
4 Sort the medal count in descending order.



Close

1. Click the **Value** axis, and select the **Sort descending** icon.

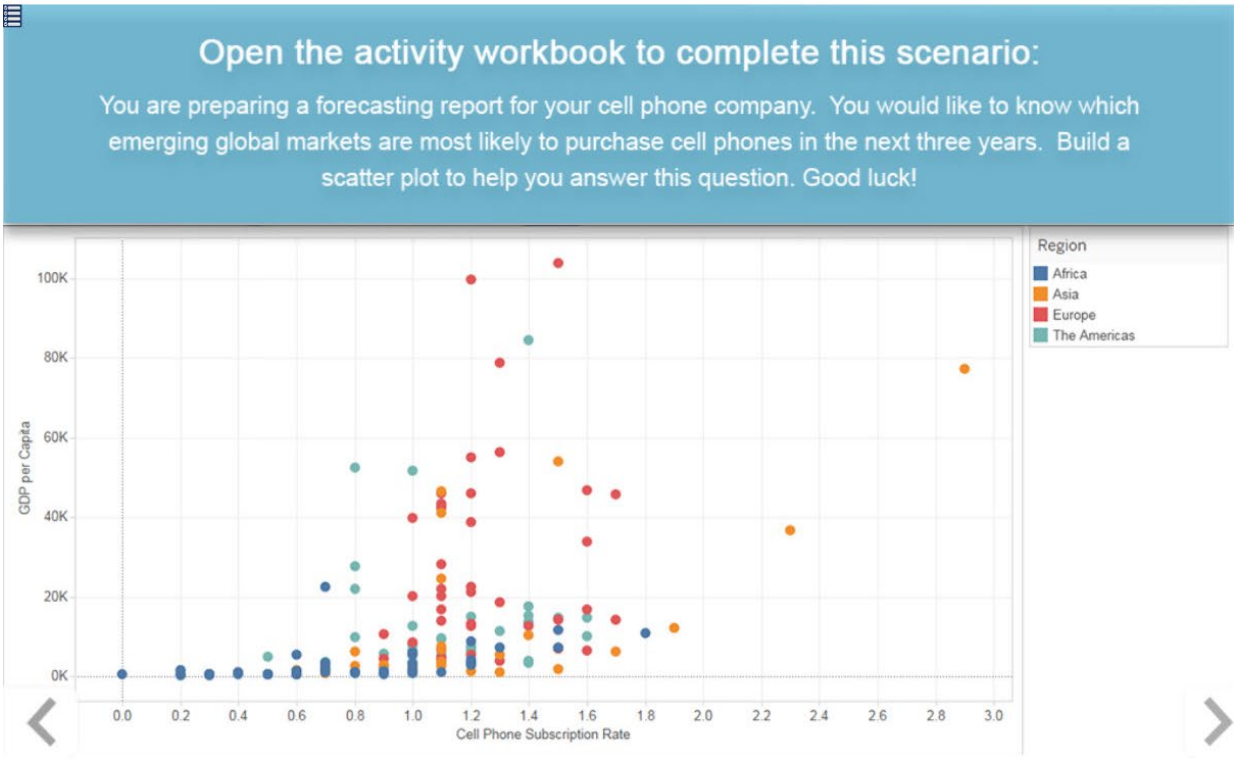
5 Change the name of the Value axis to “Medals Won by Country”.

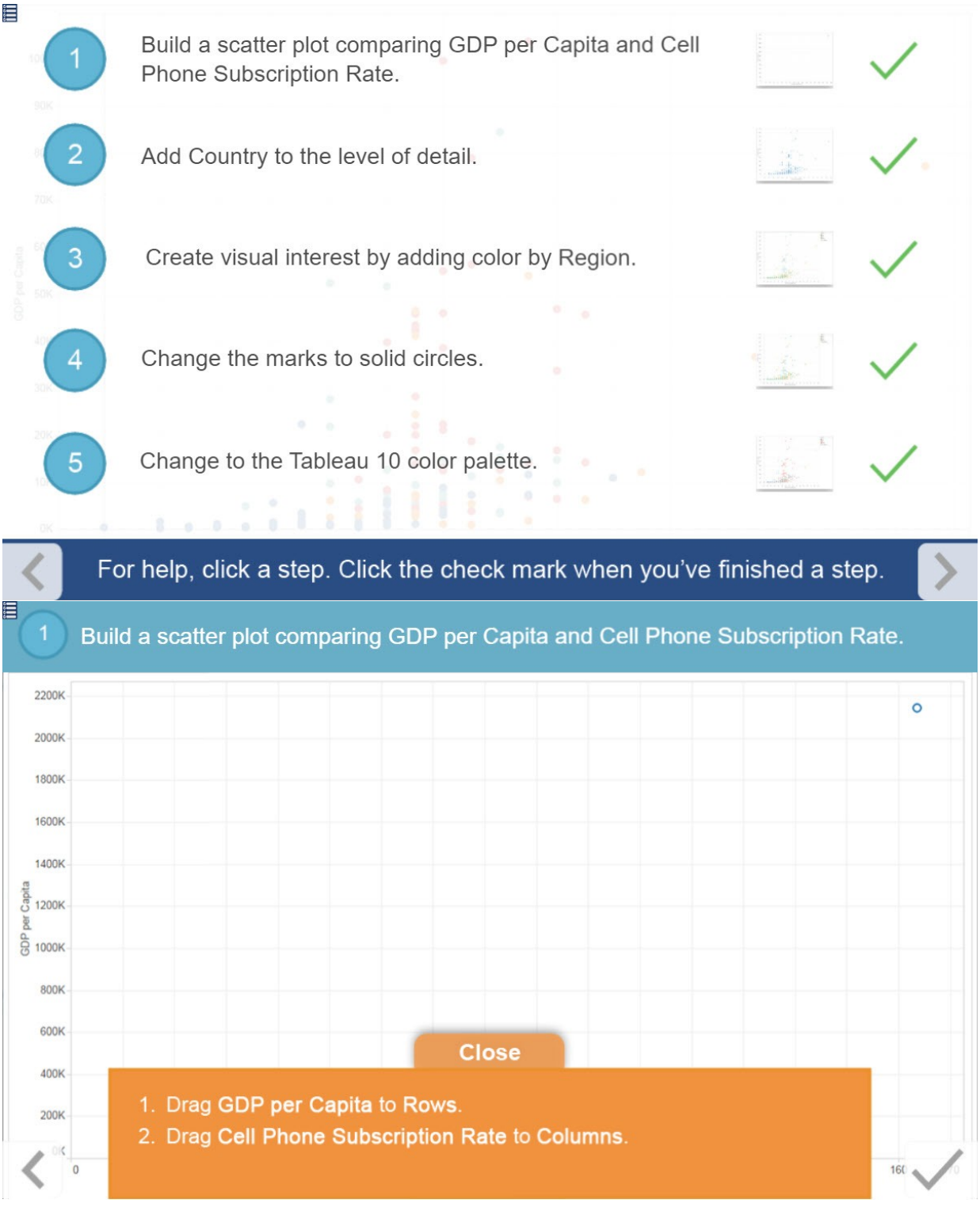


Close

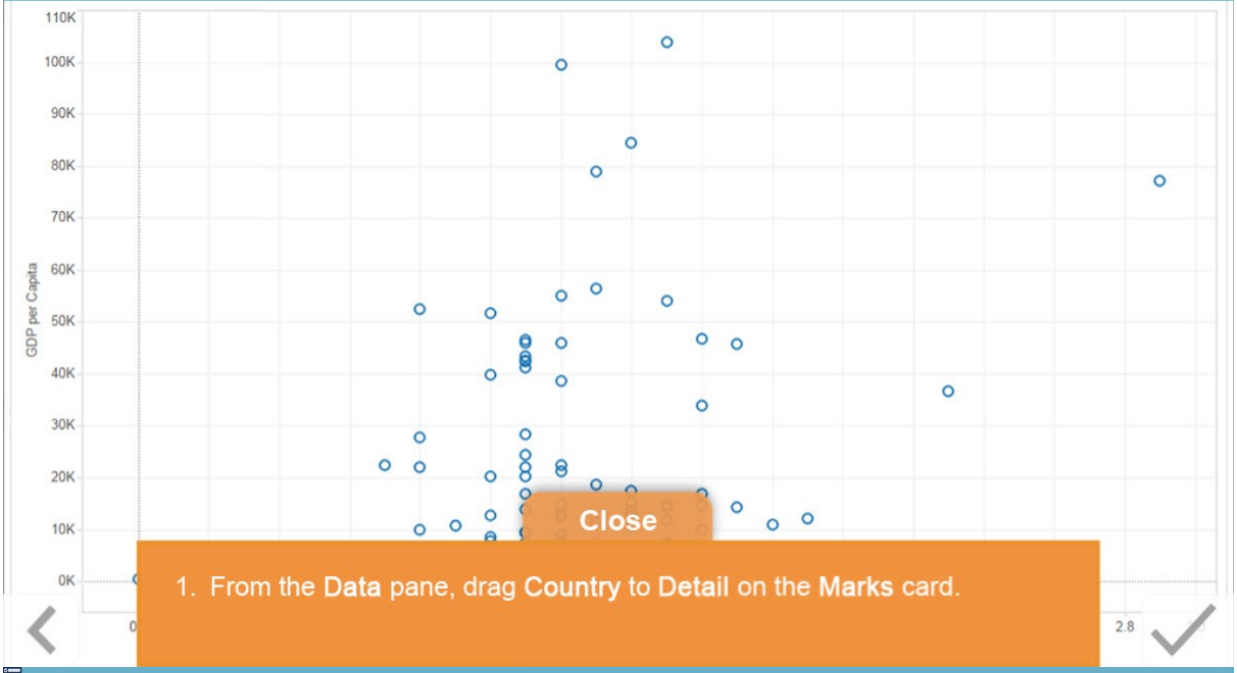
1. Right-click the **Value** axis, and select **Edit Axis**.
2. Under **Titles**, in the **Title** field, type: **Medals Won by Country**
3. Click **OK**.


Build a Scatter Plot
Create and customize a scatter plot.
Start


Open the activity workbook to complete this scenario:
You are preparing a forecasting report for your cell phone company. You would like to know which emerging global markets are most likely to purchase cell phones in the next three years. Build a scatter plot to help you answer this question. Good luck!
Region
Africa
Asia
Europe
The Americas
GDP per Capita
100K
80K
60K
40K
20K
0K
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
Cell Phone Subscription Rate


1
Build a scatter plot comparing GDP per Capita and Cell Phone Subscription Rate.
2
Add Country to the level of detail.
3
Create visual interest by adding color by Region.
4
Change the marks to solid circles.
5
Change to the Tableau 10 color palette.
For help, click a step. Click the check mark when you've finished a step.
1
Build a scatter plot comparing GDP per Capita and Cell Phone Subscription Rate.
2200K
2000K
1800K
1600K
1400K
1200K
1000K
800K
600K
400K
200K
GDP per Capita
0
Close
1. Drag GDP per Capita to Rows.
2. Drag Cell Phone Subscription Rate to Columns.

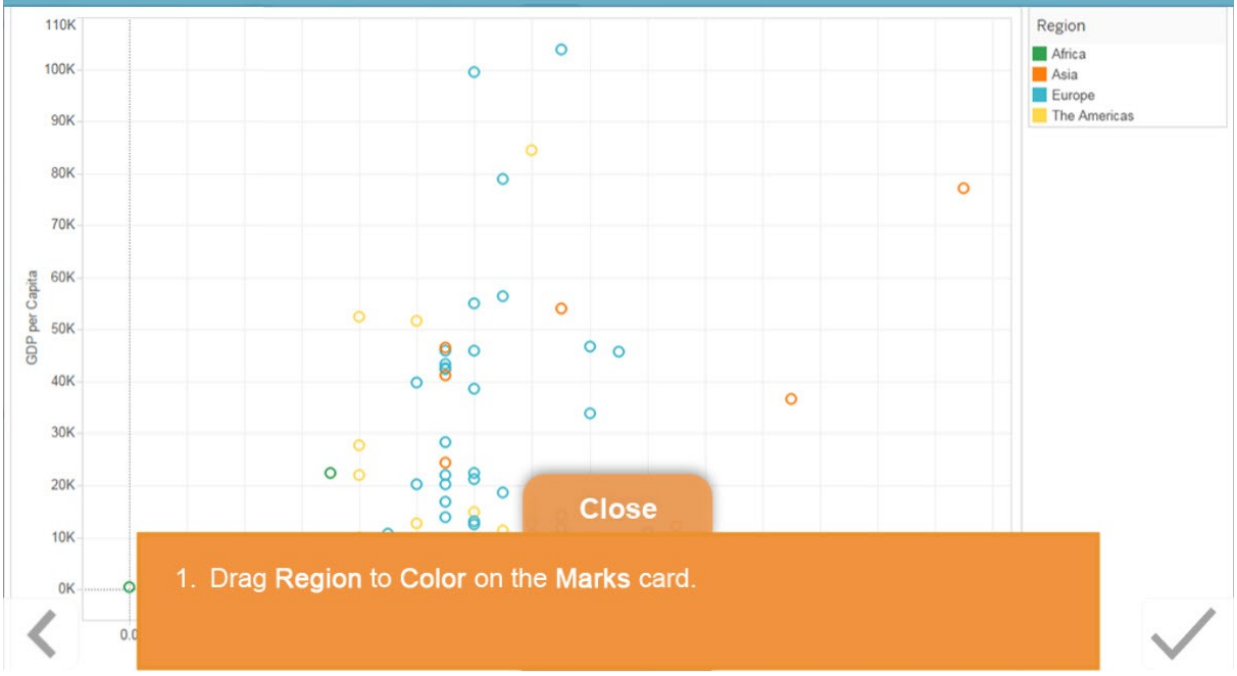
2 Add Country to the level of detail.



Close

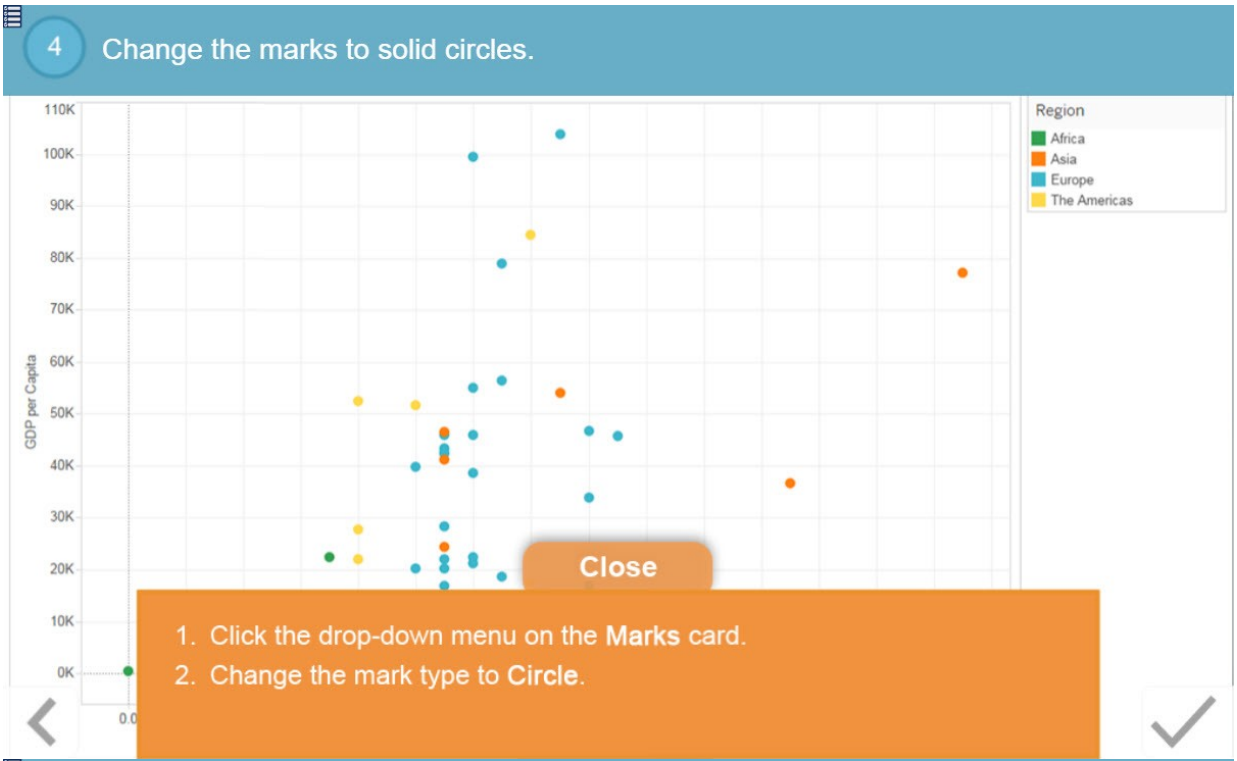
1. From the **Data** pane, drag **Country** to **Detail** on the **Marks** card.

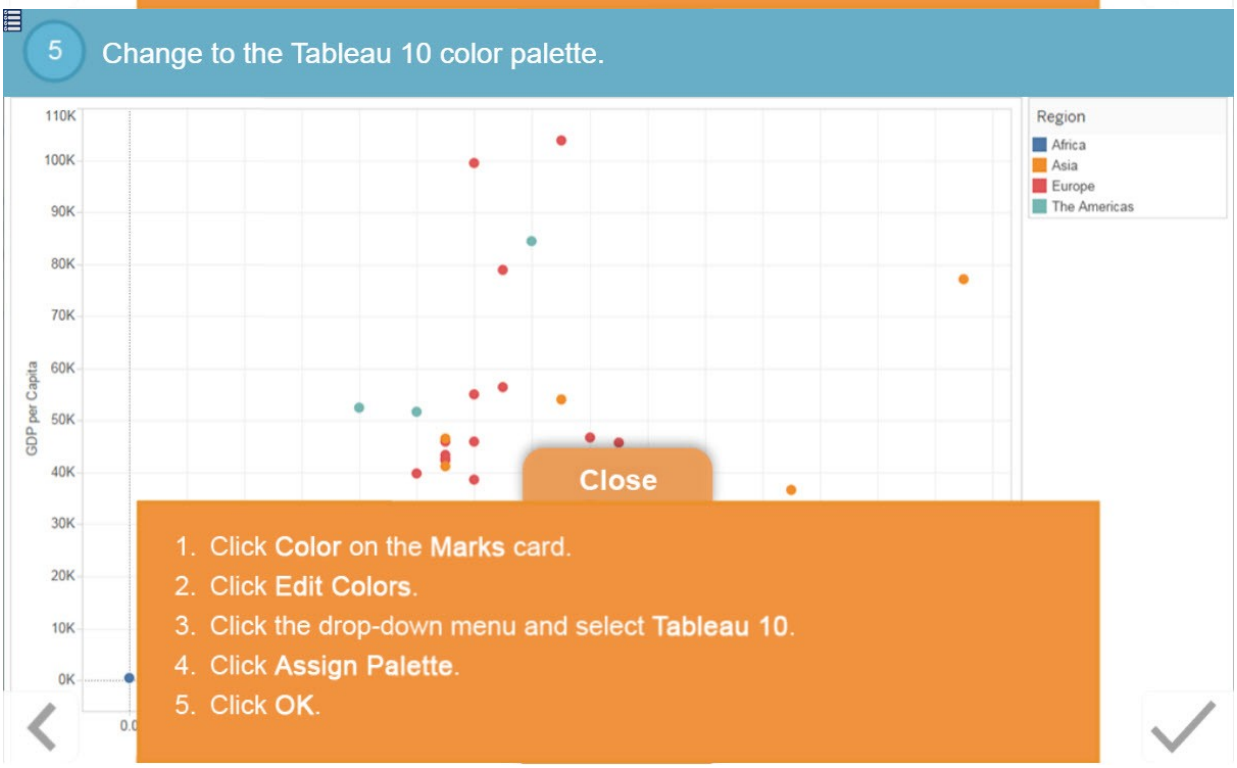
3 Create visual interest by adding color by Region.



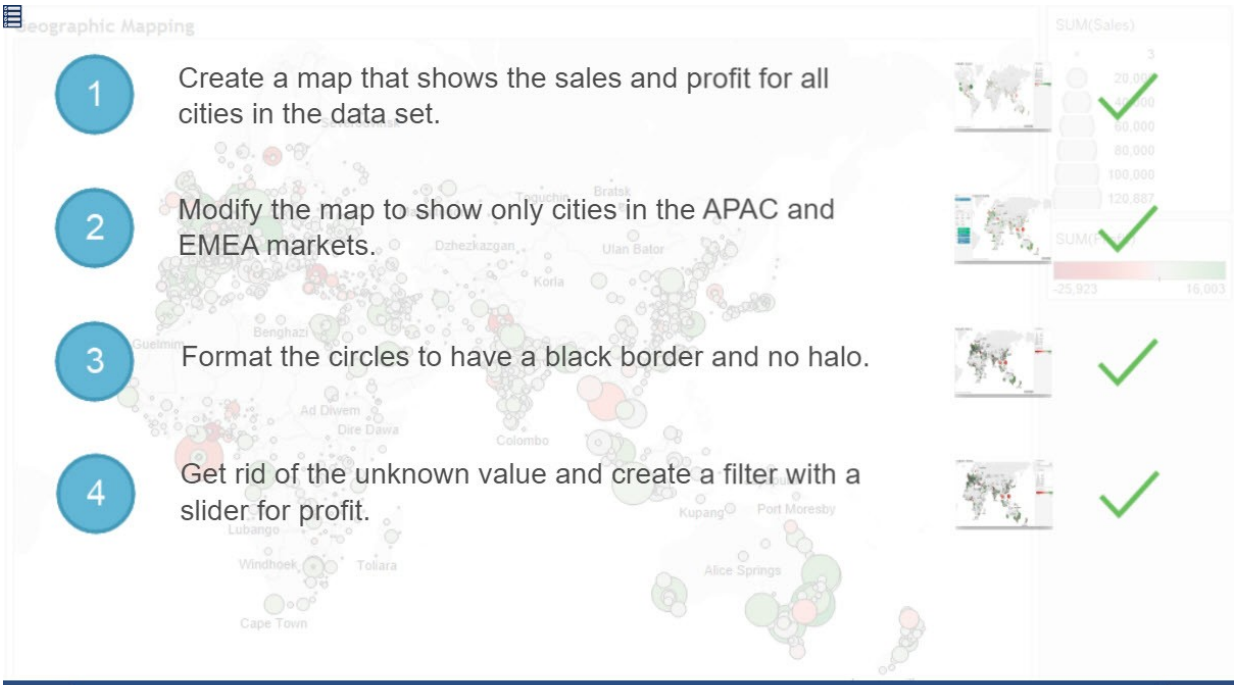
Close

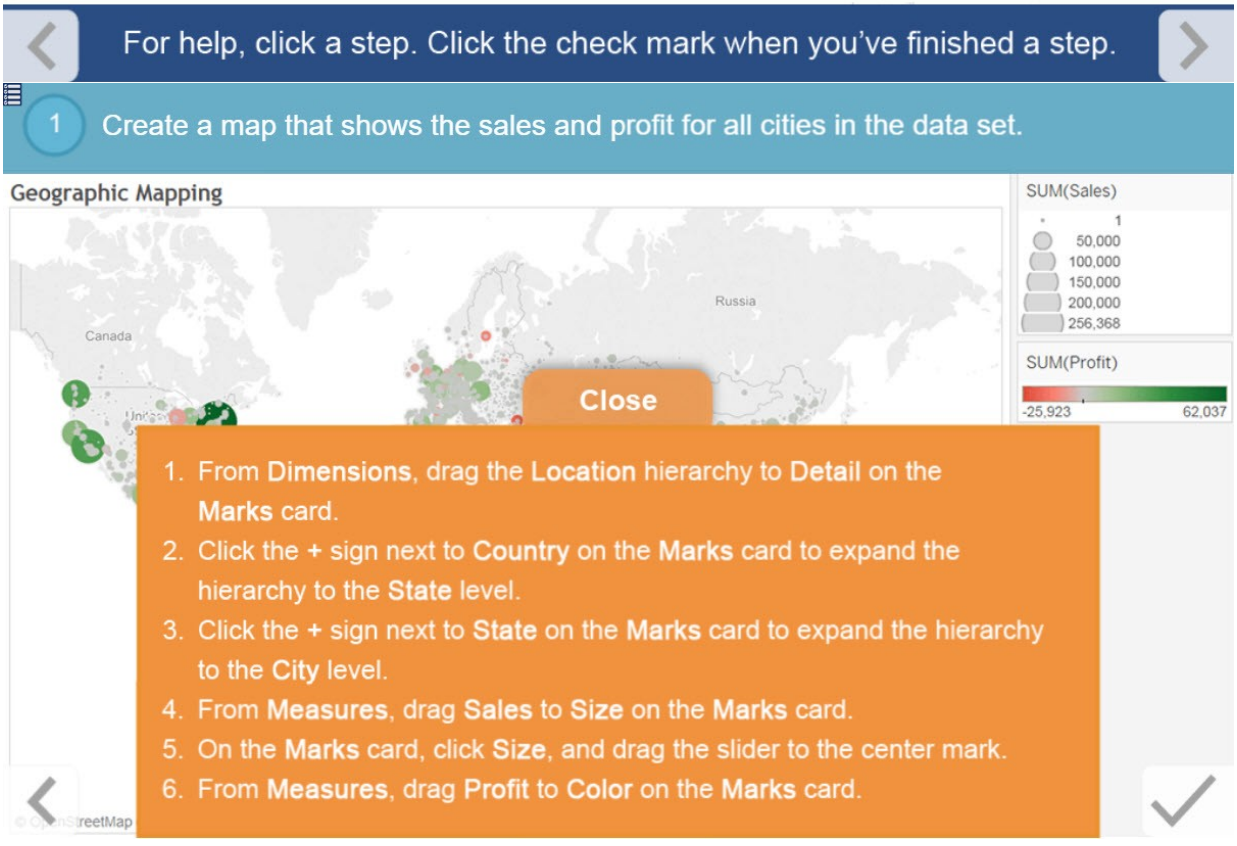
1. Drag **Region** to **Color** on the **Marks** card.

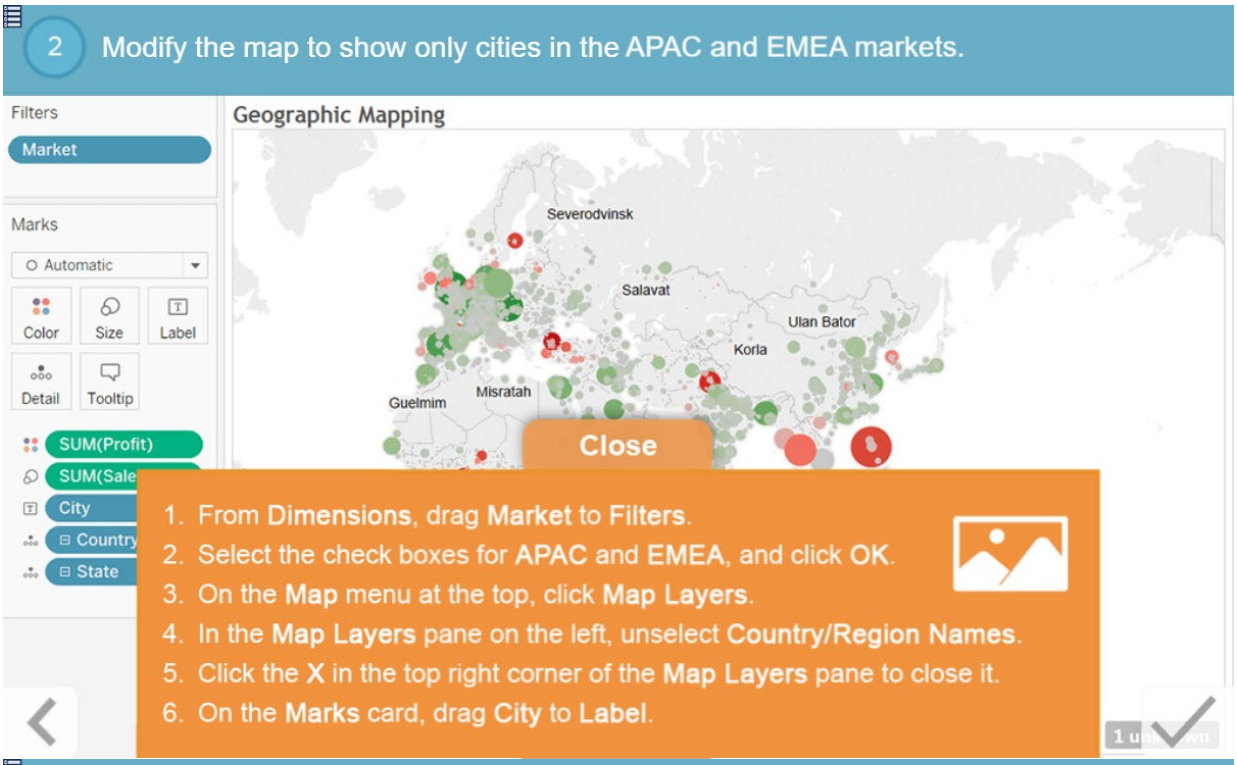

4
Change the marks to solid circles.
110K
100K
90K
80K
70K
60K
50K
40K
30K
20K
10K
0K
GDP per Capita
Region
Africa
Asia
Europe
The Americas
Close
1. Click the drop-down menu on the Marks card.
2. Change the mark type to Circle.

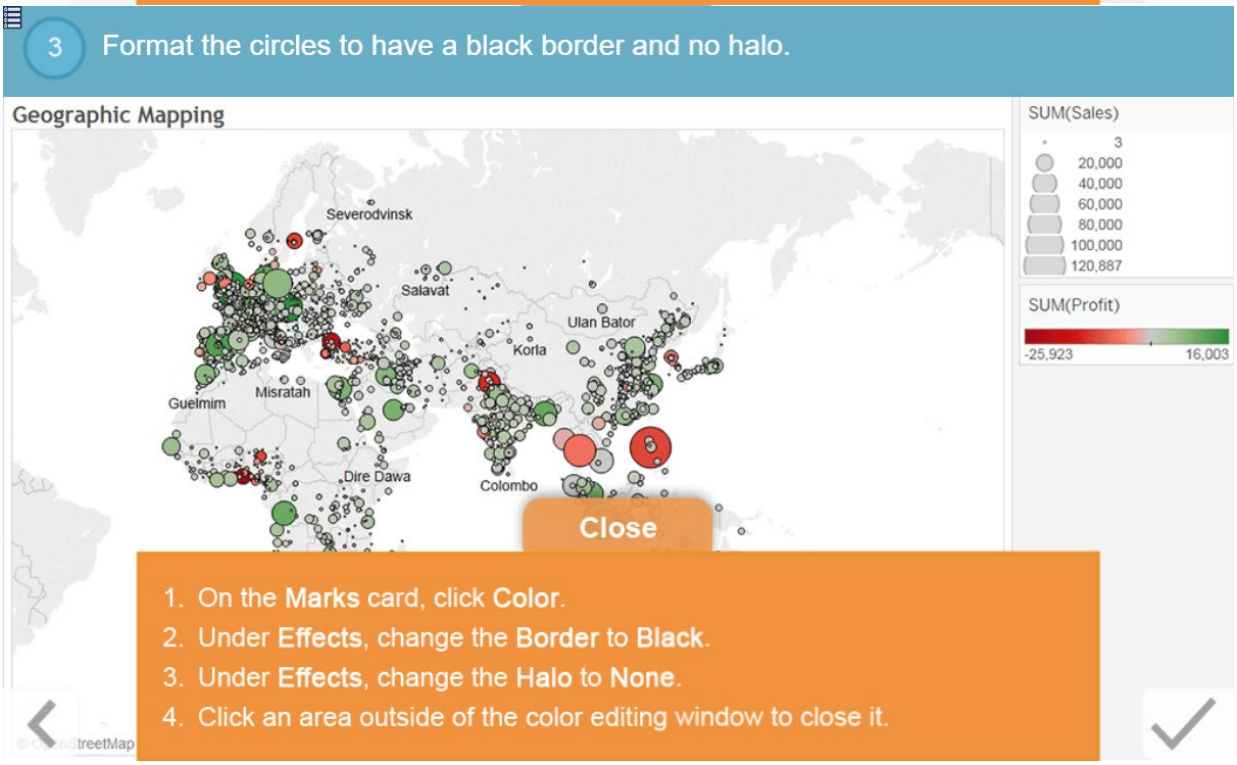

5
Change to the Tableau 10 color palette.
110K
100K
90K
80K
70K
60K
50K
40K
30K
20K
10K
0K
GDP per Capita
Region
Africa
Asia
Europe
The Americas
Close
1. Click Color on the Marks card.
2. Click Edit Colors.
3. Click the drop-down menu and select Tableau 10.
4. Click Assign Palette.
5. Click OK.

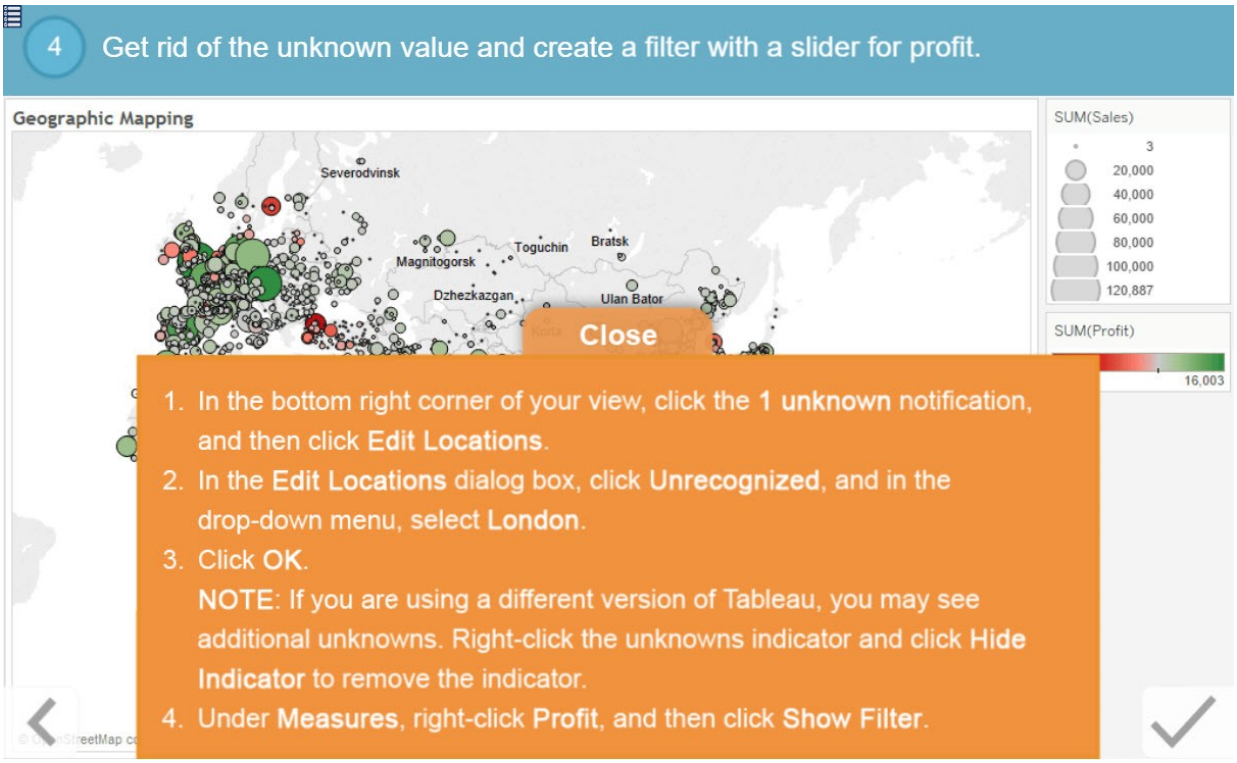

+ a b | e a u
Build a Symbol Map
Use a symbol map to show market data.
Start


Geographic Mapping
1
Create a map that shows the sales and profit for all cities in the data set.
2
Modify the map to show only cities in the APAC and EMEA markets.
3
Format the circles to have a black border and no halo.
4
Get rid of the unknown value and create a filter with a slider for profit.
SUM(Sales)
SUM(Profit)
-25,923
16,003

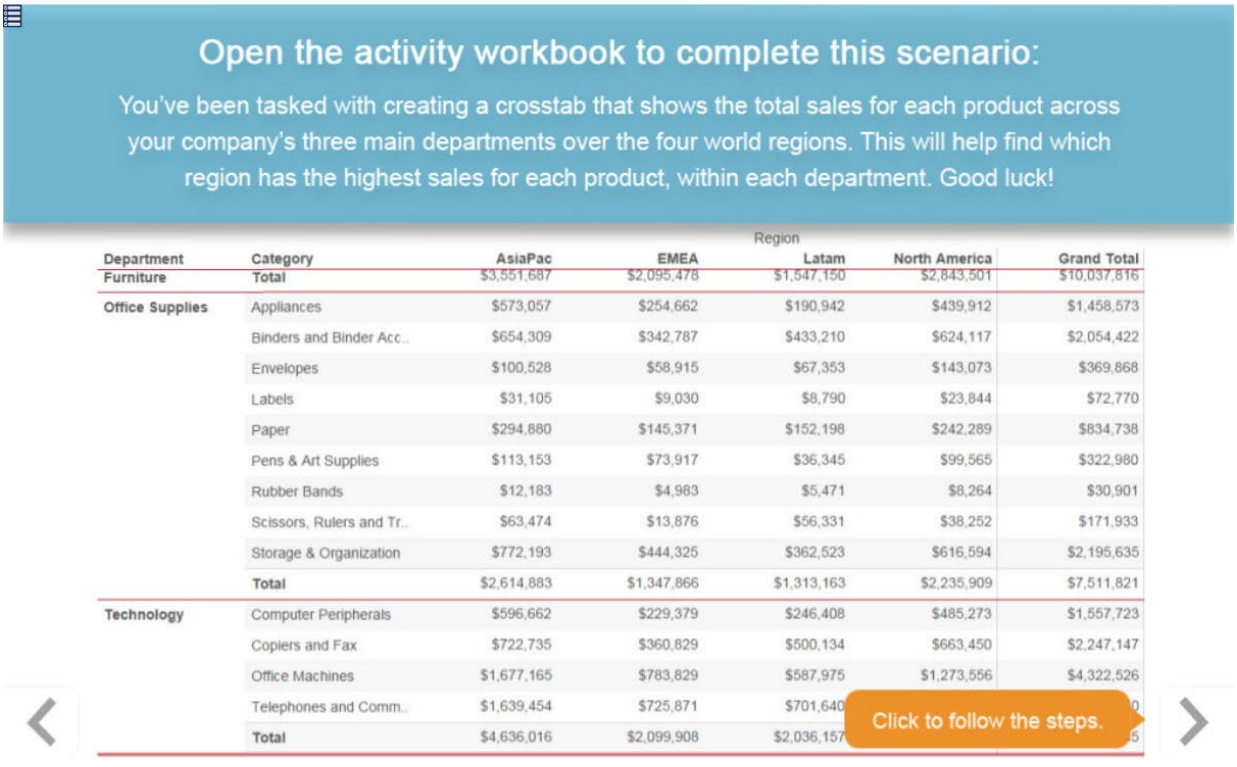

For help, click a step. Click the check mark when you've finished a step.
1
Create a map that shows the sales and profit for all cities in the data set.
Geographic Mapping
SUM(Sales)
1
50,000
100,000
150,000
200,000
256,368
SUM(Profit)
-25,923
62,037
Canada
Russia
Close
1. From Dimensions, drag the Location hierarchy to Detail on the Marks card.
2. Click the + sign next to Country on the Marks card to expand the hierarchy to the State level.
3. Click the + sign next to State on the Marks card to expand the hierarchy to the City level.
4. From Measures, drag Sales to Size on the Marks card.
5. On the Marks card, click Size, and drag the slider to the center mark.
6. From Measures, drag Profit to Color on the Marks card.

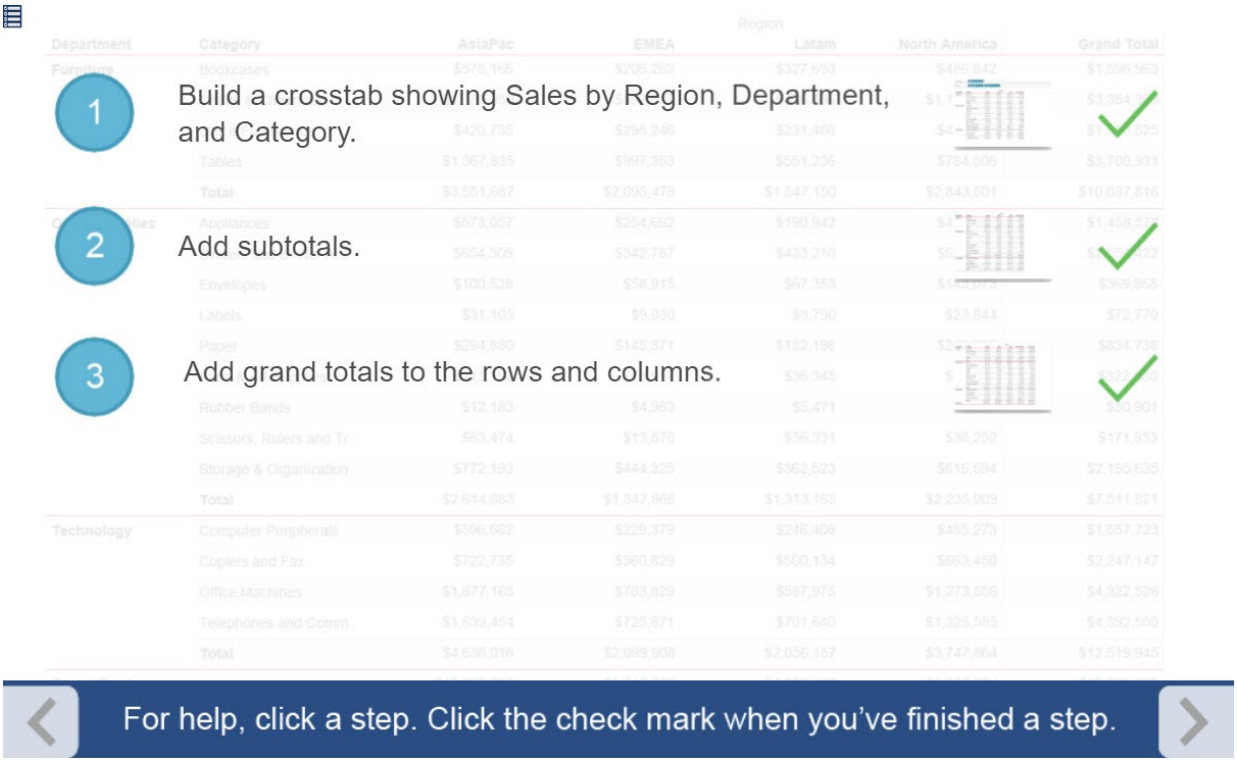

2
Modify the map to show only cities in the APAC and EMEA markets.
Filters
Market
Marks
Automatic
Color
Size
Label
Detail
Tooltip
SUM(Profit)
City
Country
State
Geographic Mapping
Severodvinsk
Salavat
Ulan Bator
Korla
Misratah
Guelmim
Close
1. From Dimensions, drag Market to Filters.
2. Select the check boxes for APAC and EMEA, and click OK.
3. On the Map menu at the top, click Map Layers.
4. In the Map Layers pane on the left, unselect Country/Region Names.
5. Click the X in the top right corner of the Map Layers pane to close it.
6. On the Marks card, drag City to Label.


3
Format the circles to have a black border and no halo.
Geographic Mapping
SUM(Sales)
3
20,000
40,000
60,000
80,000
100,000
120,887
SUM(Profit)
-25,923
16,003
Severodvinsk
Salavat
Ulan Bator
Korla
Misratah
Guelmim
Dire Dawa
Colombo
Close
1. On the Marks card, click Color.
2. Under Effects, change the Border to Black.
3. Under Effects, change the Halo to None.
4. Click an area outside of the color editing window to close it.

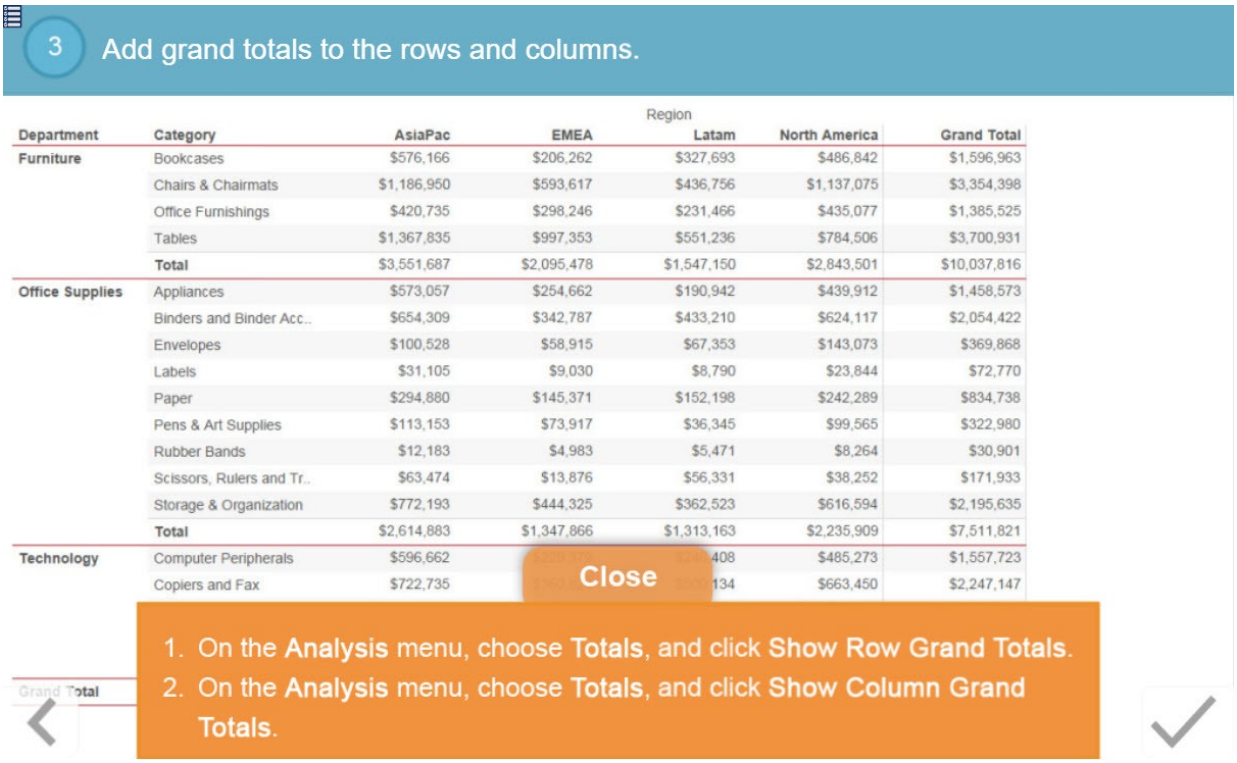

4
Get rid of the unknown value and create a filter with a slider for profit.
Geographic Mapping
Severodvinsk
Magnitogorsk
Toguchin
Bratsk
Dzhezkazgan
Ulan Bator
SUM(Sales)
3
20,000
40,000
60,000
80,000
100,000
120,887
SUM(Profit)
16,003
Close
1. In the bottom right corner of your view, click the 1 unknown notification, and then click Edit Locations.
2. In the Edit Locations dialog box, click Unrecognized, and in the drop-down menu, select London.
3. Click OK.
NOTE: If you are using a different version of Tableau, you may see additional unknowns. Right-click the unknowns indicator and click Hide Indicator to remove the indicator.
4. Under Measures, right-click Profit, and then click Show Filter.


Show Sales Totals in a Crosstab
Add totals and subtotals.
Start


Open the activity workbook to complete this scenario:
You've been tasked with creating a crosstab that shows the total sales for each product across your company's three main departments over the four world regions. This will help find which region has the highest sales for each product, within each department. Good luck!
Region
Department
Category
AsiaPac
EMEA
Latam
North America
Grand Total
Furniture
Total
$3,551,687
$2,095,478
$1,547,150
$2,843,501
$10,037,816
Office Supplies
Appliances
$573,057
$254,662
$190,942
$439,912
$1,458,573
Binders and Binder Acc..
$654,309
$342,787
$433,210
$624,117
$2,054,422
Envelopes
$100,528
$58,915
$67,353
$143,073
$369,868
Labels
$31,105
$9,030
$8,790
$23,844
$72,770
Paper
$294,880
$145,371
$152,198
$242,289
$834,738
Pens & Art Supplies
$113,153
$73,917
$36,345
$99,565
$322,980
Rubber Bands
$12,183
$4,983
$5,471
$8,264
$30,901
Scissors, Rulers and Tr..
$63,474
$13,876
$56,331
$38,252
$171,933
Storage & Organization
$772,193
$444,325
$362,523
$616,594
$2,195,635
Total
$2,614,883
$1,347,866
$1,313,163
$2,235,909
$7,511,821
Technology
Computer Peripherals
$596,662
$229,379
$246,408
$485,273
$1,557,723
Copiers and Fax
$722,735
$360,829
$500,134
$663,450
$2,247,147
Office Machines
$1,677,165
$783,829
$587,975
$1,273,556
$4,322,526
Telephones and Comm..
$1,639,454
$725,871
$701,640
Total
$4,636,016
$2,099,908
$2,036,157
Click to follow the steps.


1
Build a crosstab showing Sales by Region, Department, and Category.
2
Add subtotals.
3
Add grand totals to the rows and columns.
For help, click a step. Click the check mark when you've finished a step.


1
Build a crosstab showing Sales by Region, Department, and Category.
Columns
Region
Rows
Department
Category
Region
Department
Category
AsiaPac
EMEA
Latam
North America
Furniture
Bookcases $576,166 $206,262 $327,693 $486,842
Chairs & Chairmats $1,186,950 $593,617 $436,756 $1,137,075
Office Furnishings $420,735 $298,246 $231,466 $435,077
Tables $1,367,835 $997,353 $551,236 $784,506
Office Supplies
Appliances $573,057 $254,662 $190,942 $439,912
Binders and Binder Acc.. $654,309 $342,787 $433,210 $624,117
Envelopes $100,528 $58,915 $67,353 $143,073
Labels $31,105 $9,030 $8,790 $23,844
Paper $294,880 $145,371 $152,198 $242,289
Pens & Art Supplies $113,153 $73,917 $36,345 $99,565
Rubber Bands $12,183 $5,471 $8,264
Scissors, Rulers and Tr.. $63,474 $38,252
Close
Technology
1. Drag Sales to the view area.
2. Drag Department to Rows, and then drag Category to the right of Department.
3. Drag Region to Columns.
2
Add subtotals.
Region
Department
Category
AsiaPac
EMEA
Latam
North America
Furniture
Bookcases $576,166 $206,262 $327,693 $486,842
Chairs & Chairmats $1,186,950 $593,617 $436,756 $1,137,075
Office Furnishings $420,735 $298,246 $231,466 $435,077
Tables $1,367,835 $997,353 $551,236 $784,506
Total $3,551,687 $2,095,478 $1,547,150 $2,843,501
Office Supplies
Appliances $573,057 $254,662 $190,942 $439,912
Binders and Binder Acc.. $654,309 $342,787 $433,210 $624,117
Envelopes $100,528 $58,915 $67,353 $143,073
Labels $31,105 $9,030 $8,790 $23,844
Paper $294,880 $145,371 $152,198 $242,289
Pens & Art Supplies $113,153 $73,917 $36,345 $99,565
Rubber Bands $12,183 $4,983 $5,471 $8,264
Scissors, Rulers and Tr.. $63,474 $13,876 $56,331 $38,252
Storage & Organization $772,193 $444,325 $362,523 $616,594
Total $2,614,883 $1,347,866 $1,313,163 $2,235,909
Technology
Computer Peripherals $596,662 $229,379 $246,408 $485,273
Copiers and Fax $722,735 $500,134 $663,450
Office Machines $1,677,165 975 $1,273,556
Close
1. On the Analysis menu, choose Totals, and click Add All Subtotals.


3
Add grand totals to the rows and columns.
Region
Department
Category
AsiaPac
EMEA
Latam
North America
Grand Total
Furniture
Bookcases $576,166 $206,262 $327,693 $486,842 $1,596,963
Chairs & Chairmats $1,186,950 $593,617 $436,756 $1,137,075 $3,354,398
Office Furnishings $420,735 $298,246 $231,466 $435,077 $1,385,525
Tables $1,367,835 $997,353 $551,236 $784,506 $3,700,931
Total $3,551,687 $2,095,478 $1,547,150 $2,843,501 $10,037,816
Office Supplies
Appliances $573,057 $254,662 $190,942 $439,912 $1,458,573
Binders and Binder Acc.. $654,309 $342,787 $433,210 $624,117 $2,054,422
Envelopes $100,528 $58,915 $67,353 $143,073 $369,868
Labels $31,105 $9,030 $8,790 $23,844 $72,770
Paper $294,880 $145,371 $152,198 $242,289 $834,738
Pens & Art Supplies $113,153 $73,917 $36,345 $99,565 $322,980
Rubber Bands $12,183 $4,983 $5,471 $8,264 $30,901
Scissors, Rulers and Tr.. $63,474 $13,876 $56,331 $38,252 $171,933
Storage & Organization $772,193 $444,325 $362,523 $616,594 $2,195,635
Total $2,614,883 $1,347,866 $1,313,163 $2,235,909 $7,511,821
Technology
Computer Peripherals $596,662 $485,273 $1,557,723
Copiers and Fax $722,735 $663,450 $2,247,147
Close
1. On the Analysis menu, choose Totals, and click Show Row Grand Totals.
2. On the Analysis menu, choose Totals, and click Show Column Grand Totals.

Department	Category	Region: AsiaPac	EMEA	Latam	North America	Grand Total
Furniture	Bookcases	$5,879	$5,893	$8,402	$2,36	$4,225
	Chairs & Chairmats	$6,314	$7,811	$6,824	$2,56	$4,345
	Office Furnishings	$1,245	$1,506	$1,503	$49	
	Tables	$9,119	$9,875	$8,352	$1,93	$5,126
	Average	$4,589	$5,111	$4,790	$1,46	$2,911
Office Supplies	Appliances	$2,851	$2,927	$2,220	$89	
	Binders and Binder Acc..	$1,596	$1,723	$2,292	$60	$1,123
	Envelopes	$986	$879	$1,321	$52	
	Labels	$218	$164	$187	$7	
	Paper	$561	$525	$590	$17	$341
	Pens & Art Supplies	$406	$483	$333	$13	
	Rubber Bands	$149	$108	$161	$4	
	Scissors, Rulers and Tr..	$894	$396	$2,253	$24	$597
	Storage & Organization	$3,139	$3,444	$3,554	$1,00	$2,0
	Average	$1,269	$1,286	$1,457	$42	$815
Technology	Computer Peripherals	$1,690	$1,390	$1,676	$57	$1,028
	Copiers and Fax	$20,650	$16,401	$27,785	$6,70	$12,915
	Office Machines	$10,043	$11,198	$10,315	$3,35	$6,413
	Telephones and Comm..	$3,970	$4,055	$4,032	$1,32	$2,487
	Average	$4,789	$4,816	$5,142	$1,60	$3,031
Grand Total		$2,841	$2,927	$3,023	$93	$1,790

Open the activity workbook to complete this scenario:

You've been tasked with creating a viz that shows the average sales for each product as well as the weighted average over all of the regions. Make sure the crosstab's subtotals labels indicate averages, not totals.

Good luck!

1. Change the grand totals and subtotals to a weighted average.

2. Change the label of the subtotals to Average.

For help, click a step. Click the check mark when you've finished a step.

1 Change the grand totals and subtotals to a weighted average.

Department	Category	AsiaPac	EMEA	Latam	North America	Grand Total
				Region		
Furniture	Bookcases	$5,879	$5,893	$8,402	$2,363	$4,225
	Chairs & Chairmats	$6,314	$7,811	$6,824	$2,561	$4,345
	Office Furnishings	$1,245	$1,506	$1,503	$491	$879
	Tables	$9,119	$9,875	$8,352	$1,937	$5,126
	Total	$4,589	$5,111	$4,790	$1,465	$2,911
Office Supplies	Appliances	$2,851	$2,927	$2,220	$891	$1,680
	Binders and Binder Acc..	$1,596	$1,723	$2,292	$605	$1,123
	Envelopes	$986	$879	$1,321	$526	$752
	Labels	$218	$164	$187	$72	$126
	Paper	$561	$525	$590	$174	$341
	Pens & Art Supplies	$406	$483	$333	$137	$255
	Rubber Bands	$149	$108	$161	$42	$86
	Scissors, Rulers and Tr..	$894	$396	$2,253	$244	$597
	Storage & Organization	$3,139	$3,444		$1,003	$2,011
	Total					
Technology	Co					
	Co					
	Of					
	Te					
	To					
Grand Total						

Close

1. Make sure the worksheet named **Average Sales (Weighted)** is selected.
2. On the **Marks** card, click the **SUM(Sales)** drop-down arrow, select **Measure (Sum)**, and click **Average**.

2 Change the label of the subtotals to Average.

		Region				
Department	Category	AsiaPac	EMEA	Latam	North America	Grand Total
Furniture	Bookcases	$5,879	$5,893	$8,402	$2,363	$4,225
	Chairs & Chairmats	$6,314	$7,811	$6,824	$2,561	$4,345
	Office Furnishings	$1,245	$1,506	$1,503	$491	$879
	Tables	$9,119	$9,875	$8,352	$1,937	$5,126
	Average	$4,589	$5,111	$4,790	$1,465	$2,911
Office Supplies	Appliances	$2,851	$2,927	$2,220	$891	$1,680
	Binders and Binder Acc..	$1,596	$1,723	$2,292	$605	$1,123
	Envelopes	$986	$879	$1,321	$526	$752
	Labels	$218	$164	$187	$72	$126
	Paper	$561	$525	$590	$174	$341
	Pens & Art Supplies	$406	$483	$333	$137	$255
	Rubber Bands	$149	$108	$161	$42	$86
	Scissors, Rulers and Tr..	$894	$396	$2,253	$244	$597
	Storage & Organization	$3,139	$3,444		$1,003	$2,011
	Average	$1,269	$1,286		$429	$815
Technology	Co					
	Co					
	Or					
	Te					
	Av					
Grand Total						

Close

1. In the view, right-click on **Total** and select **Format**.
2. In the **Format Category** window, under **Totals**, update the **Label** field to **Average**.
3. Press **Enter**, and compare this sheet with the **Total Sales** sheet.

Open the activity workbook to complete this scenario:

You are preparing to share some data with your European counterparts about their best and worst categories for sales. They want to see all the values, and you want to help them find trends. Build a highlight table to show which category of product was most profitable in the EMEA Region. Good luck!

Region / SubRegion

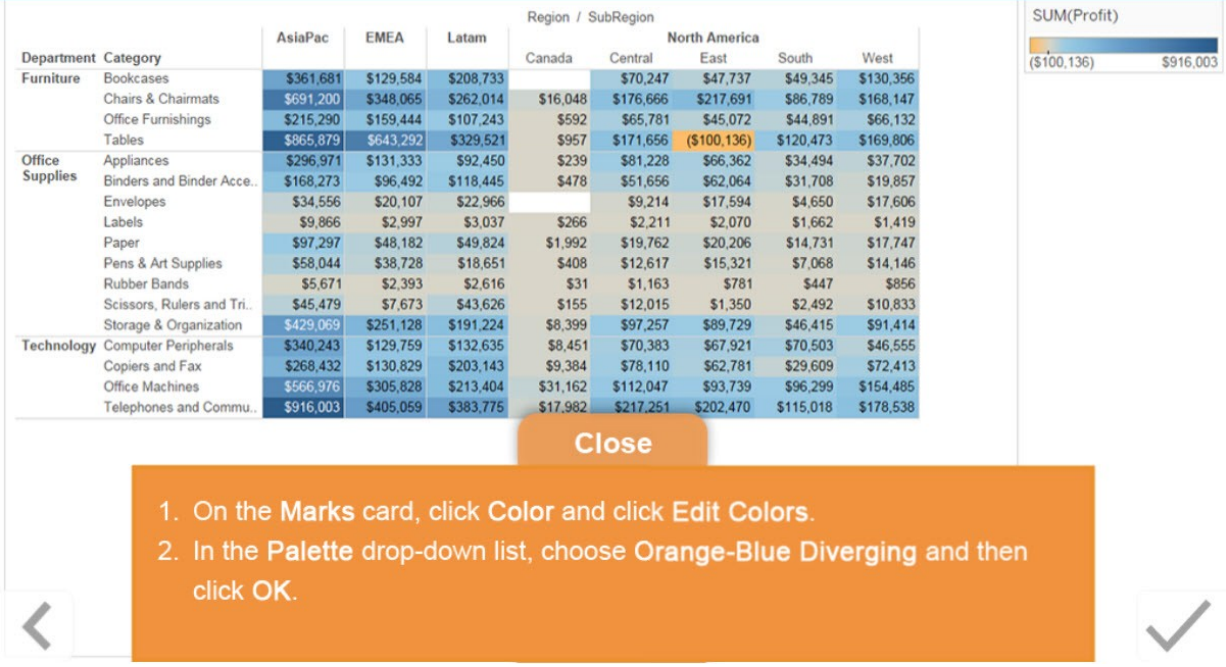
Department	Category	AsiaPac	EMEA	Latam	North America				
					Canada	Central	East	South	West
Furniture	Bookcases	$361,681	$129,584	$208,733		$70,247	$47,737	$49,345	$130,356
	Chairs & Chairmats	$691,200	$348,065	$262,014	$16,048	$176,666	$217,691	$86,789	$168,147
	Office Furnishings	$215,290	$159,444	$107,243	$592	$65,781	$45,072	$44,891	$66,132
	Tables	$865,879	$643,292	$329,521	$957	$171,656	($100,136)	$120,473	$169,806
Office Supplies	Appliances	$296,971	$131,333	$92,450	$239	$81,228	$66,362	$34,494	$37,702
	Binders and Binder Acce..	$168,273	$96,492	$118,445	$478	$51,656	$62,064	$31,708	$19,857
	Envelopes	$34,556	$20,107	$22,966		$9,214	$17,594	$4,650	$17,606
	Labels	$9,866	$2,997	$3,037	$266	$2,211	$2,070	$1,662	$1,419
	Paper	$97,297	$48,182	$49,824	$1,992	$19,762	$20,206	$14,731	$17,747
	Pens & Art Supplies	$58,044	$38,728	$18,651	$408	$12,617	$15,321	$7,068	$14,146
	Rubber Bands	$5,671	$2,393	$2,616	$31	$1,163	$781	$447	$856
	Scissors, Rulers and Tri..	$45,479	$7,673	$43,626	$155	$12,015	$1,350	$2,492	$10,833
	Storage & Organization	$429,069	$251,128	$191,224	$8,399	$97,257	$89,729	$46,415	$91,414
Technology	Computer Peripherals	$340,243	$129,759	$132,635	$8,451	$70,383	$67,921	$70,503	$46,555
	Copiers and Fax	$268,432	$130,829	$203,143	$9,384	$78,110	$62,781	$29,609	$72,413
	Office Machines	$566,976	$305,828	$213,404	$31,162	$112,047	$93,739	$96,299	$154,485
	Telephones and Commu..	$916,003	$405,059	$383,775	$17,982	$217,251	$202,470	$115,018	$178,538

SUM(Profit)

($100,136) $916,003


1
Build a highlight table that shows profit for department and category by region and subregion.
2
To give the colors more contrast, edit the colors to use the Orange-Blue Diverging color palette.
For help, click a step. Click the check mark when you've finished a step.
1
Build a highlight table that shows profit for department and category by region and subregion.
Region / SubRegion
AsiaPac
EMEA
Latam
North America
Canada
Central
East
South
West
Department
Category
Furniture
Bookcases $361,681 $129,584 $208,733 $70,247 $47,737 $49,345 $130,356
Chairs & Chairmats $691,200 $348,065 $262,014 $16,048 $176,666 $217,691 $86,789 $168,147
Office Furnishings $215,290 $159,444 $107,243 $592 $65,781 $45,072 $44,891 $66,132
Tables $865,879 $643,292 $329,521 $957 $171,656 ($100,136) $120,473 $169,806
Office Supplies
Appliances $296,971 $131,333 $92,450 $239 $81,228 $66,362 $34,494 $37,702
Binders and Binder Acce.. $168,273 $96,492 $118,445 $478 $51,656 $62,064 $31,708 $19,857
Envelopes $34,556 $20,107 $22,966 $9,214 $17,594 $4,650 $17,606
Labels $9,866 $2,997 $3,037 $266 $2,211 $2,070 $1,662 $1,419
Paper $97,297 $48,182 $49,824 $1,992 $19,762 $20,206 $14,731 $17,747
Pens & Art Supplies $58,044 $38,728 $18,651 $408 $12,617 $15,321 $7,068 $14,146
Rubber Bands $5,671 $2,393 $2,616 $781 $447 $856
Scissors, Rulers and Tri.. $45,479 $7,673 $43,626 $1,350 $2,492 $10,833
Technology
SUM(Profit)
($100,136)
$916,003
Close
1. From Measures, drag Profit to Text on the Marks card.
2. From Measures, drag Profit to Color on the Marks card.
3. On the Marks card, change the mark type to Square.
4. From Dimensions, drag Department and Category to Rows, placing Category on the right.
5. From Dimensions, drag Region and SubRegion to Columns, placing SubRegion on the right.

2 To give the colors more contrast, edit the colors to use the Orange-Blue Diverging color palette.



Department	Category	AsiaPac	EMEA	Latam	North America				
					Canada	Central	East	South	West
Furniture	Bookcases	$361,681	$129,584	$208,733		$70,247	$47,737	$49,345	$130,356
	Chairs & Chairmats	$691,200	$348,065	$262,014	$16,048	$176,666	$217,691	$86,789	$168,147
	Office Furnishings	$215,290	$159,444	$107,243	$592	$65,781	$45,072	$44,891	$66,132
	Tables	$865,879	$643,292	$329,521	$957	$171,656	($100,136)	$120,473	$169,806
Office Supplies	Appliances	$296,971	$131,333	$92,450	$239	$81,228	$66,362	$34,494	$37,702
	Binders and Binder Acce..	$168,273	$96,492	$118,445	$478	$51,656	$62,064	$31,708	$19,857
	Envelopes	$34,556	$20,107	$22,966		$9,214	$17,594	$4,650	$17,606
	Labels	$9,866	$2,997	$3,037	$266	$2,211	$2,070	$1,662	$1,419
	Paper	$97,297	$48,182	$49,824	$1,992	$19,762	$20,206	$14,731	$17,747
	Pens & Art Supplies	$58,044	$38,728	$18,651	$408	$12,617	$15,321	$7,068	$14,146
	Rubber Bands	$5,671	$2,393	$2,616	$31	$1,163	$781	$447	$856
	Scissors, Rulers and Tri..	$45,479	$7,673	$43,626	$155	$12,015	$1,350	$2,492	$10,833
	Storage & Organization	$429,069	$251,128	$191,224	$8,399	$97,257	$89,729	$46,415	$91,414
Technology	Computer Peripherals	$340,243	$129,759	$132,635	$8,451	$70,383	$67,921	$70,503	$46,555
	Copiers and Fax	$268,432	$130,829	$203,143	$9,384	$78,110	$62,781	$29,609	$72,413
	Office Machines	$566,976	$305,828	$213,404	$31,162	$112,047	$93,739	$96,299	$154,485
	Telephones and Commu..	$916,003	$405,059	$383,775	$17,982	$217,251	$202,470	$115,018	$178,538

Close

1. On the **Marks** card, click **Color** and click **Edit Colors**.
2. In the **Palette** drop-down list, choose **Orange-Blue Diverging** and then click **OK**.

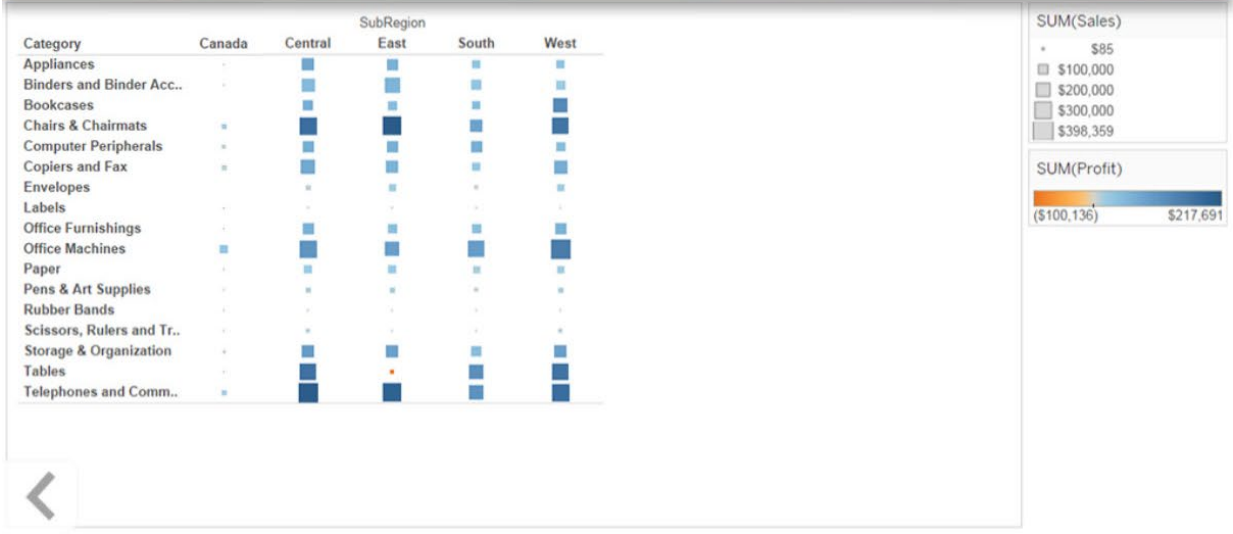
Build a Heat Map

Analyze category sales using a heat map.

Start

Open the activity workbook to complete this scenario:

For this activity, you will want to share an overview of sales and profits for each product category by sub-region in the Superstore. Then you will identify the sales value of the least profitable category. Good luck!



1. Create a heat map showing sales and profit for each product category by sub-region.

2. Adjust the size of the sales marks.

3. Change the color of profits to use the Orange-Blue Diverging palette.

For help, click a step. Click the check mark when you've finished a step.

1. Create a heat map showing sales and profit for each product category by sub-region.

Category	Canada	Central	East	South	West
Appliances					
Binders and Binder Acc..					
Bookcases					
Chairs & Chairmats					
Computer Peripherals					
Copiers and Fax					
Envelopes					
Labels					
Office Furnishings					
Office Machines					
Paper					
Pens & Art Supplies					
Rubber Bands					
Scissors, Rulers and Tr..					
Storage & Organization					
Tables					
Telephones and Comm..					

SubRegion

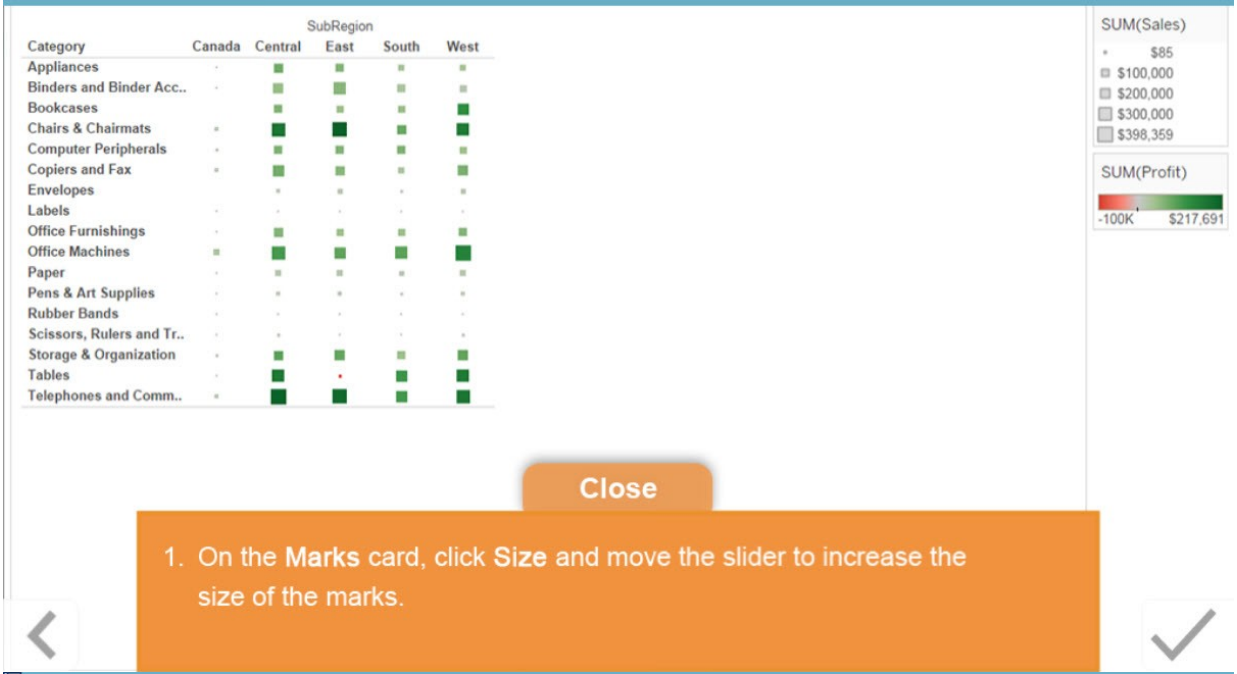
SUM(Sales)
$85
$100,000
$200,000
$300,000
$398,359

SUM(Profit)
-100K $217,691

Close

1. From **Measures**, drag **Sales** to **Size** on the **Marks** card.
2. From **Measures**, drag **Profit** to **Color** on the **Marks** card.
3. From **Dimensions**, drag **SubRegion** to **Columns**.
4. From **Dimensions**, drag **Category** to **Rows**.

2 Adjust the size of the sales marks.



Close

1. On the **Marks** card, click **Size** and move the slider to increase the size of the marks.

3 Change the color of profits to use the Orange-Blue Diverging palette.

Close

1. On the **Marks** card, click **Color**, and click **Edit Colors**.
2. In the **Palette** drop-down list, choose **Orange-Blue Diverging**, and click **OK**.

Manipulate Strings and Convert the Data Type

Use a string function and perform a data type conversion.

Start

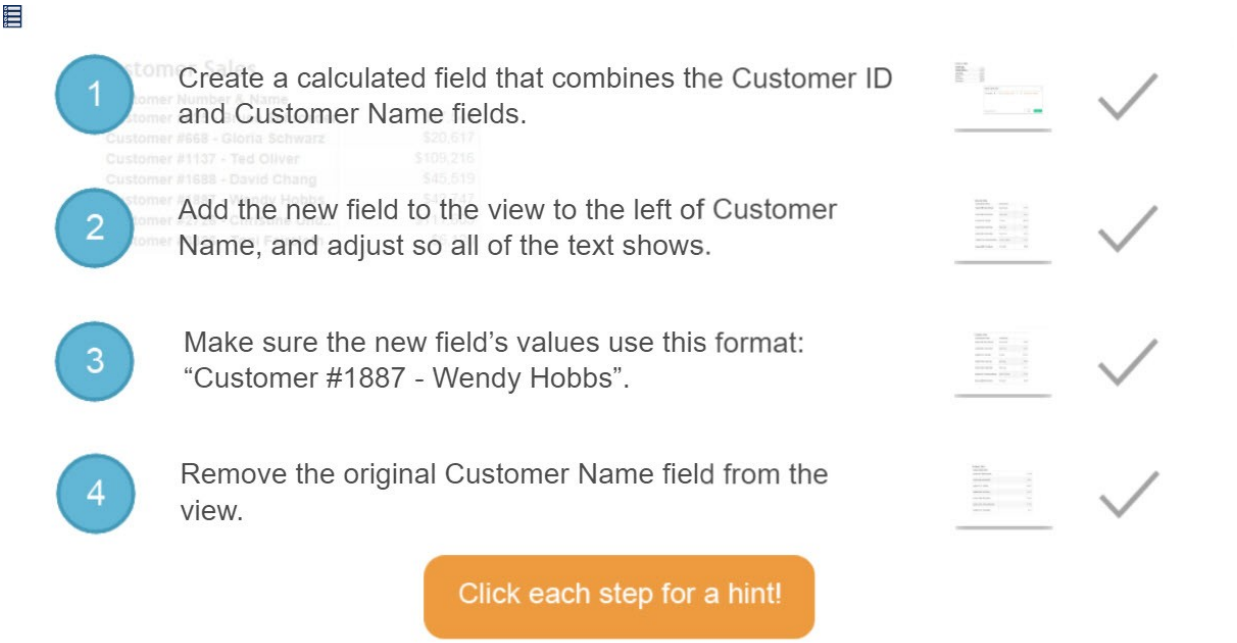
Customer Sales

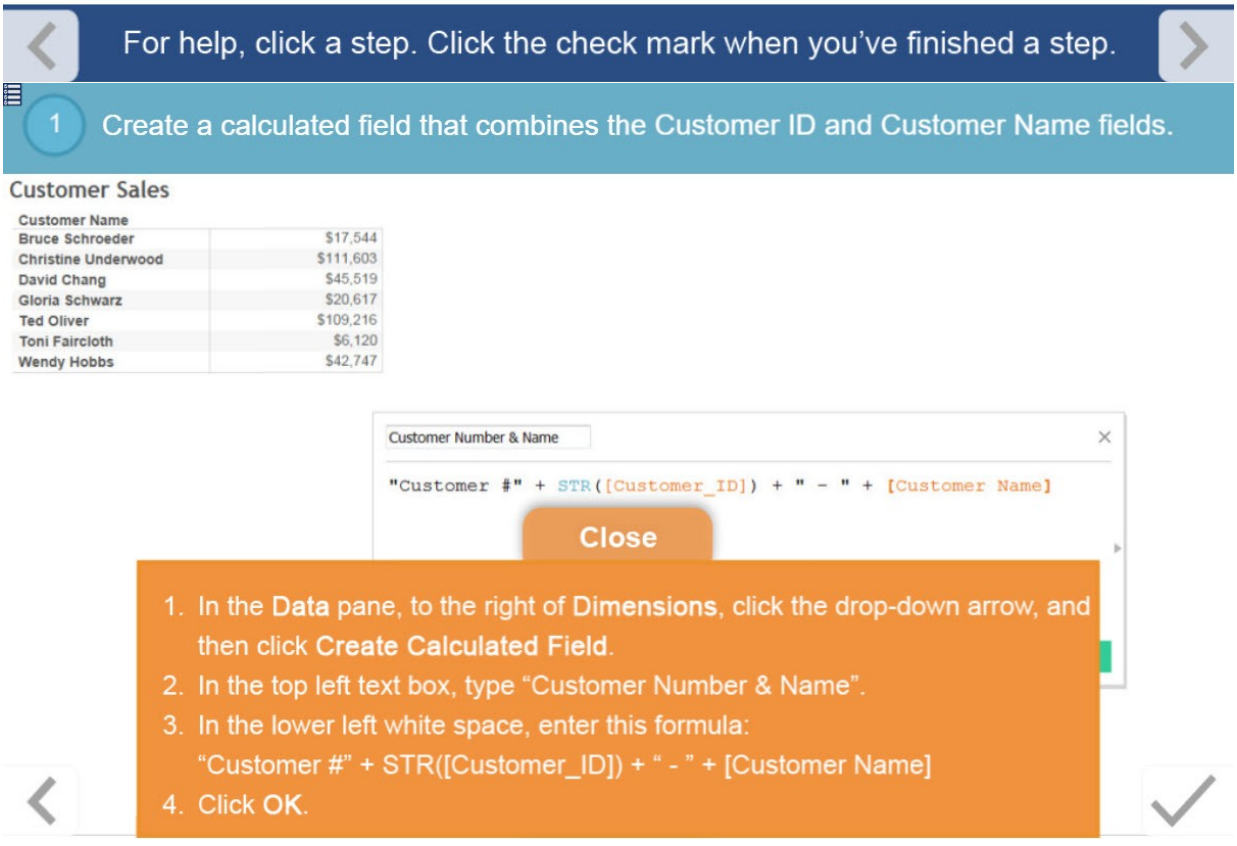
Customer Number & Name	
Customer #425 - Bruce Schroeder	$17,544
Customer #668 - Gloria Schwarz	$20,617
Customer #1137 - Ted Oliver	$109,216
Customer #1688 - David Chang	$45,519
Customer #1887 - Wendy Hobbs	$42,747
Customer #2726 - Christine Und..	$111,603
Customer #3326 - Toni Faircloth	$6,120

Open the activity workbook to complete this scenario:

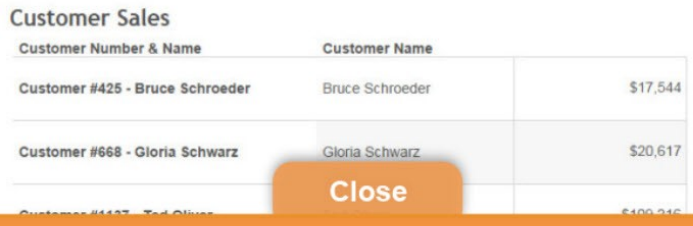
For this activity, you're tasked with developing a view that shows the sum of sales for each customer name. The new field should include text that says "Customer #", followed by the Customer ID and the customer name. To do this, you will need to create a calculated field that combines string text, a string field, and a numerical field. Good luck!

Click to follow the steps.


1
Create a calculated field that combines the Customer ID and Customer Name fields.
2
Add the new field to the view to the left of Customer Name, and adjust so all of the text shows.
3
Make sure the new field's values use this format: "Customer #1887 - Wendy Hobbs".
4
Remove the original Customer Name field from the view.
Click each step for a hint!

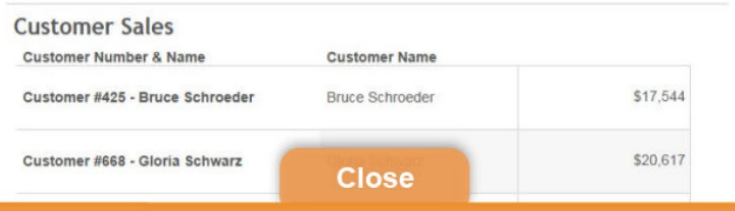

For help, click a step. Click the check mark when you've finished a step.
1
Create a calculated field that combines the Customer ID and Customer Name fields.
Customer Sales
Customer Name
Bruce Schroeder $17,544
Christine Underwood $111,603
David Chang $45,519
Gloria Schwarz $20,617
Ted Oliver $109,216
Toni Faircloth $6,120
Wendy Hobbs $42,747
Customer Number & Name
"Customer #" + STR([Customer_ID]) + " - " + [Customer Name]
Close
1. In the Data pane, to the right of Dimensions, click the drop-down arrow, and then click Create Calculated Field.
2. In the top left text box, type "Customer Number & Name".
3. In the lower left white space, enter this formula:
"Customer #" + STR([Customer_ID]) + " - " + [Customer Name]
4. Click OK.

2 Add the new field to the view to the left of Customer Name, and adjust so all of the text shows.

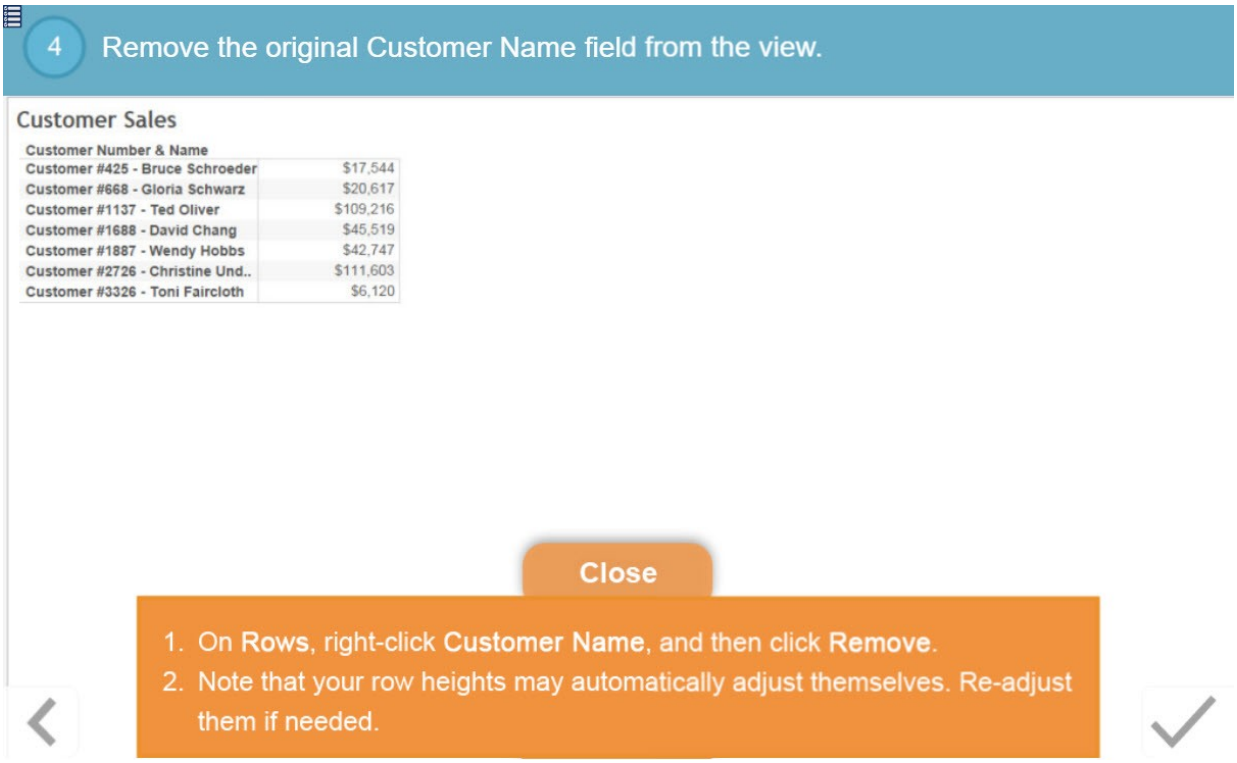


1. From **Dimensions**, drag the **Customer Number & Name** field to **Rows**, and drop it to the left of **Customer Name**.
2. If a **Warning** window appears, click **Add all members**.
3. In the view, adjust the first column's width by hovering the mouse pointer over the right border of the values under **Customer Number & Name**, and then click and drag to the right.
4. If you need to, adjust the row height by hovering the mouse pointer over the bottom row border, and then click and drag slightly down.

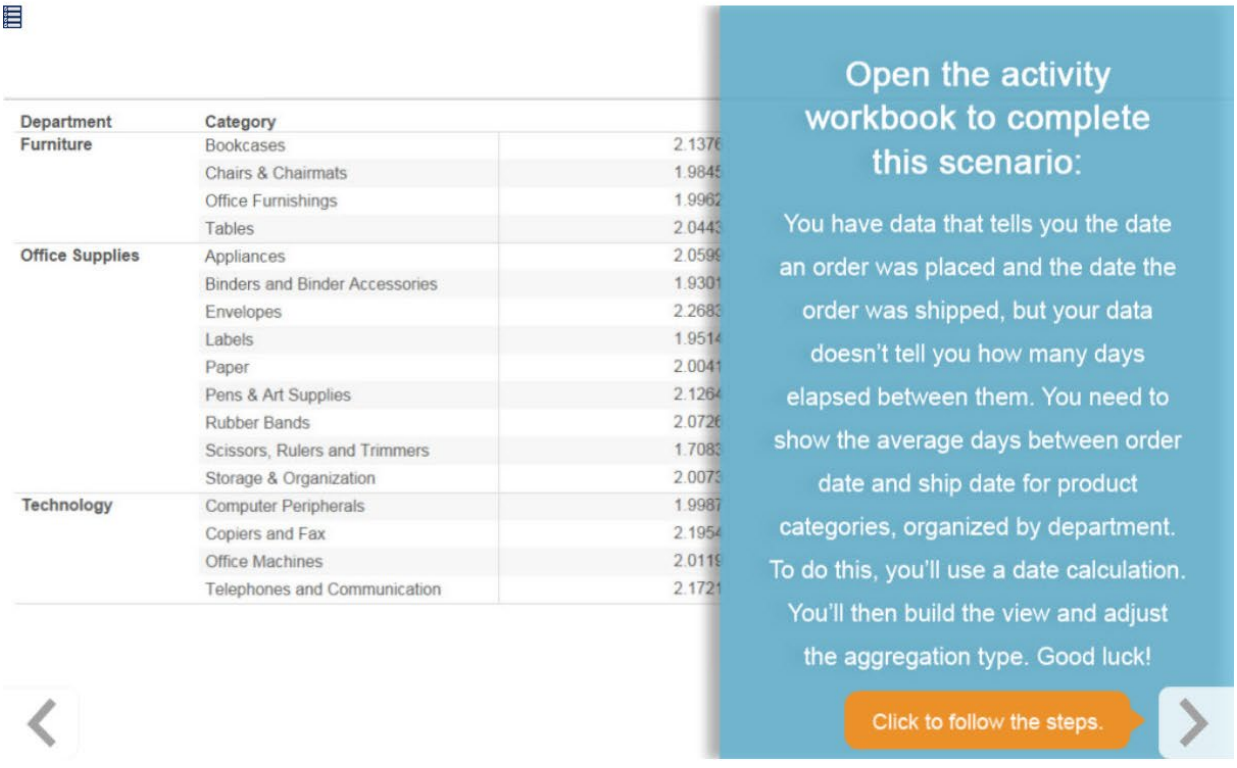
3 Make sure the new field's values use this format: "Customer #1887 - Wendy Hobbs".



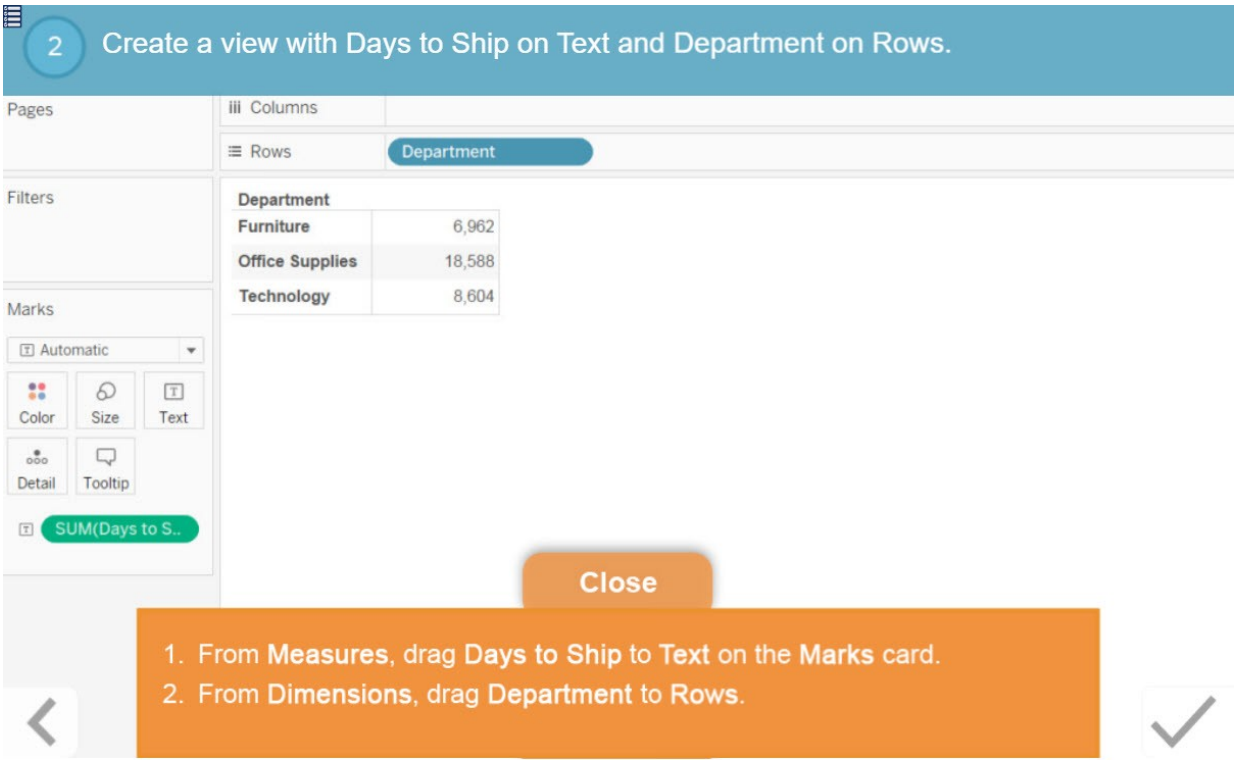
1. Make sure the new values match the format "Customer #1887 - Wendy Hobbs. If not, use the steps below to edit the calculation.
2. In the **Data** pane, right-click **Customer Number & Name**, and then click **Edit**.
3. Click and drag the top of the **Calculation Editor** as needed so you can see the view behind it.
4. Edit the formula as needed, and click **Apply** to check the result without closing the **Calculation Editor**.
5. When you're done, click **OK** to close the **Calculation Editor**.

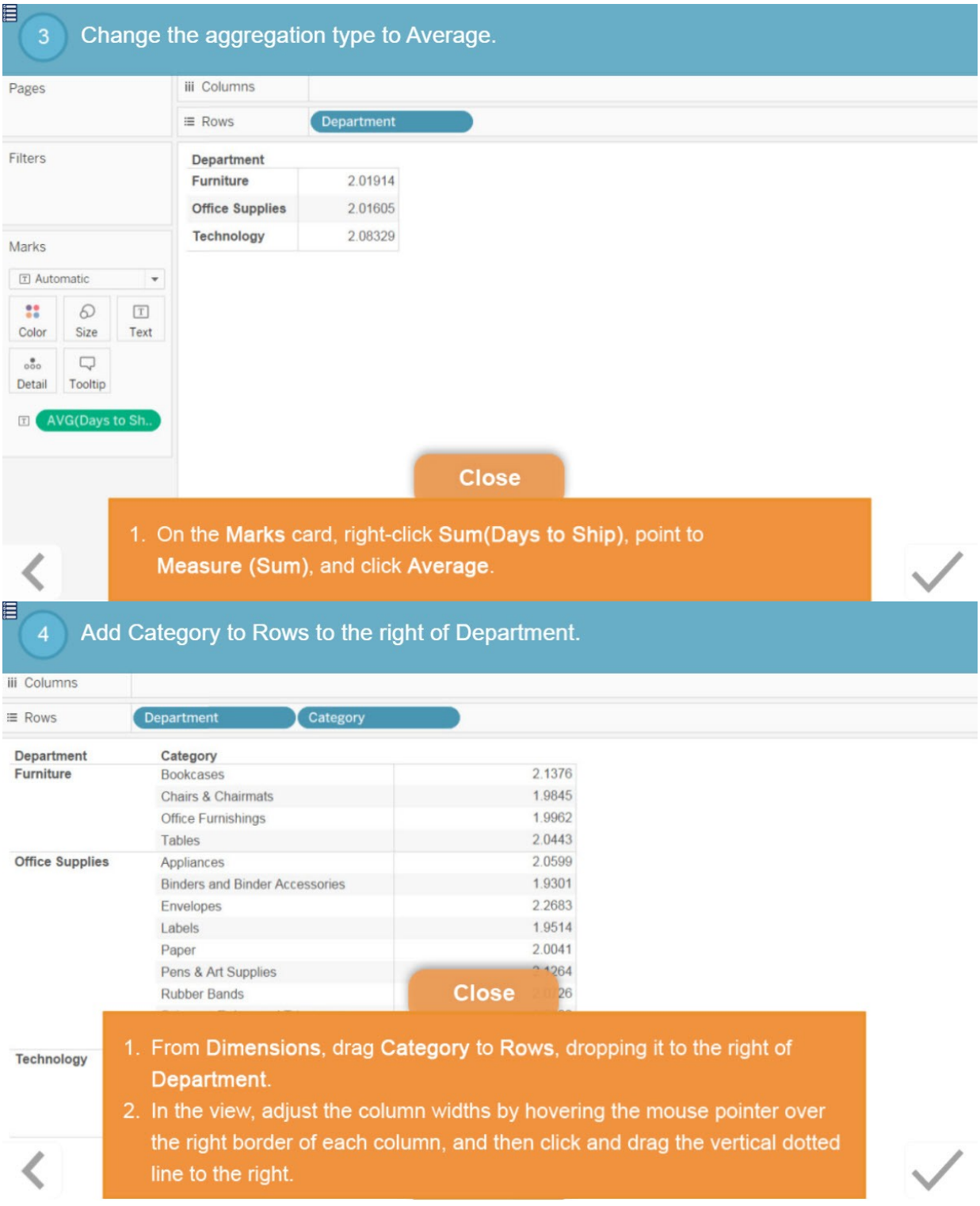

4
Remove the original Customer Name field from the view.
Customer Sales
Customer Number & Name
Customer #425 - Bruce Schroeder $17,544
Customer #668 - Gloria Schwarz $20,617
Customer #1137 - Ted Oliver $109,216
Customer #1688 - David Chang $45,519
Customer #1887 - Wendy Hobbs $42,747
Customer #2726 - Christine Und.. $111,603
Customer #3326 - Toni Faircloth $6,120
Close
1. On Rows, right-click Customer Name, and then click Remove.
2. Note that your row heights may automatically adjust themselves. Re-adjust them if needed.


+ a b | e a u
Create a Date Calculation
Calculate the number of days between start and end dates.
Start

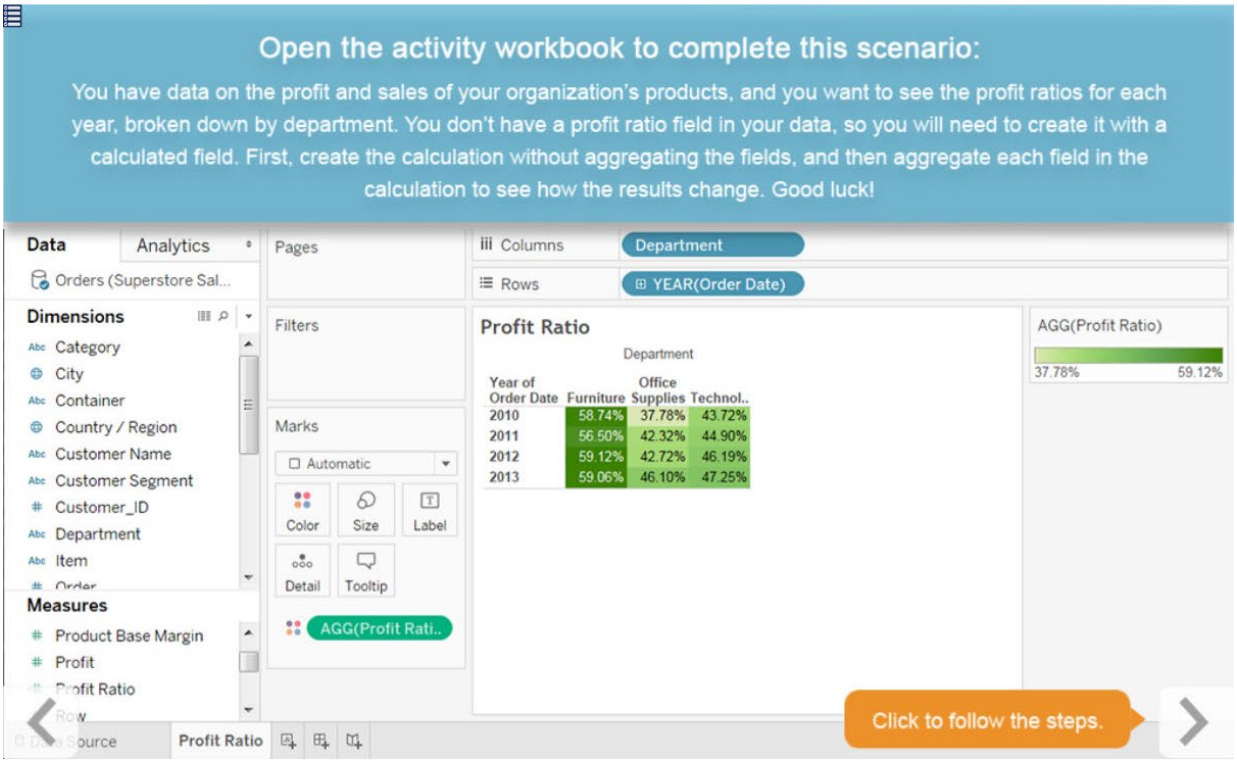

Department
Category
Furniture
Bookcases
Chairs & Chairmats
Office Furnishings
Tables
Office Supplies
Appliances
Binders and Binder Accessories
Envelopes
Labels
Paper
Pens & Art Supplies
Rubber Bands
Scissors, Rulers and Trimmers
Storage & Organization
Technology
Computer Peripherals
Copiers and Fax
Office Machines
Telephones and Communication
Open the activity workbook to complete this scenario:
You have data that tells you the date an order was placed and the date the order was shipped, but your data doesn't tell you how many days elapsed between them. You need to show the average days between order date and ship date for product categories, organized by department. To do this, you'll use a date calculation. You'll then build the view and adjust the aggregation type. Good luck!
Click to follow the steps.

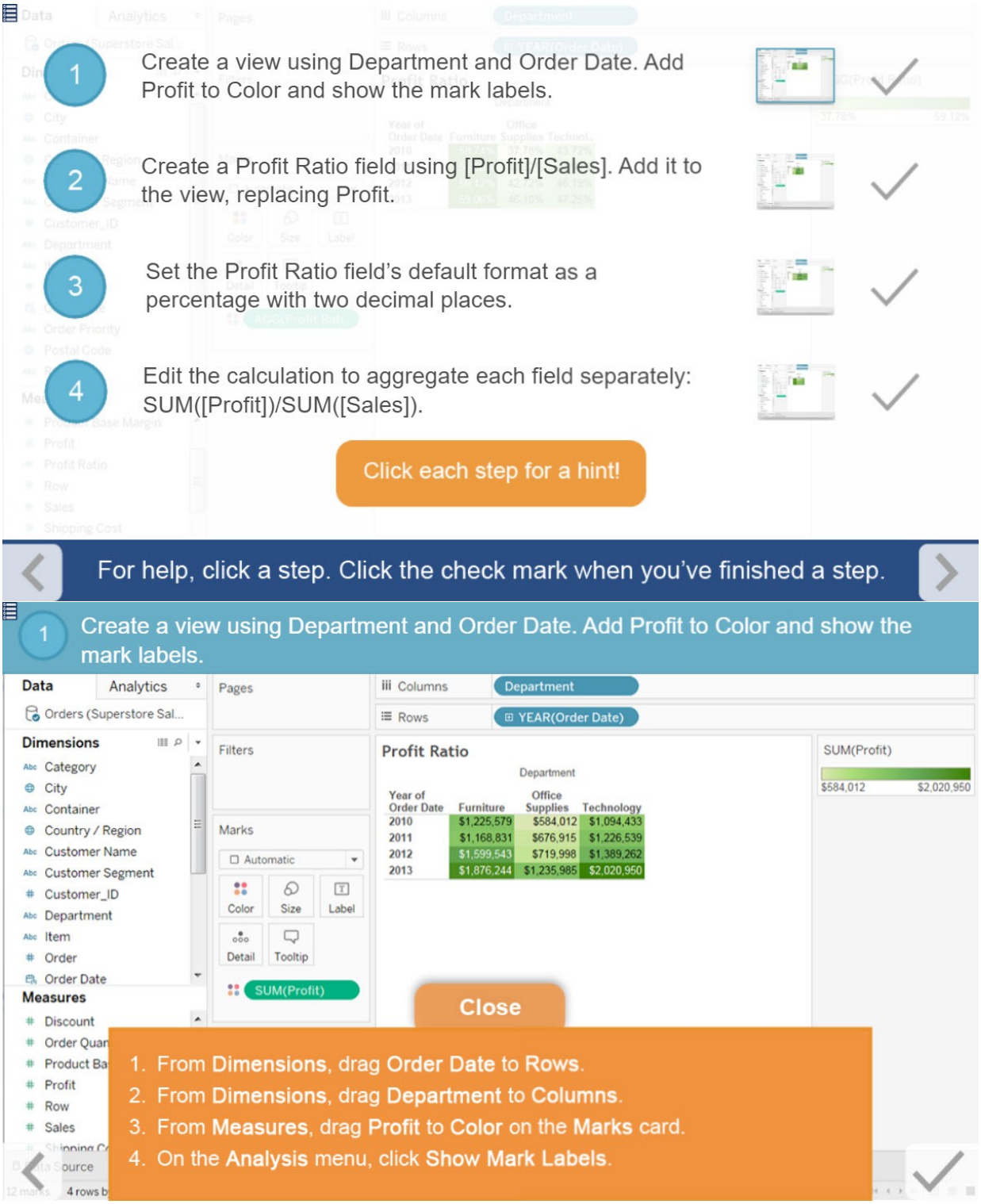

1
Create a “Days to Ship” field to calculate the days between ordering and shipping.
2
Create a view with Days to Ship on Text and Department on Rows.
3
Change the aggregation type to Average.
4
Add Category to Rows to the right of Department.
Click each step for a hint!
For help, click a step. Click the check mark when you’ve finished a step.
1
Create a “Days to Ship” field to calculate the days between ordering and shipping.
Drop field here
Days to Ship
DATEDIFF ('day', [Order Date], [Ship Date])
The calculation is valid.
Apply
OK
Close
1. In the Data pane, next to Dimensions, click the drop-down arrow, and then click Create Calculated Field.
2. Name the field “Days to Ship”.
3. Type this formula: DATEDIFF (‘day’, [Order Date], [Ship Date])
4. Click OK.

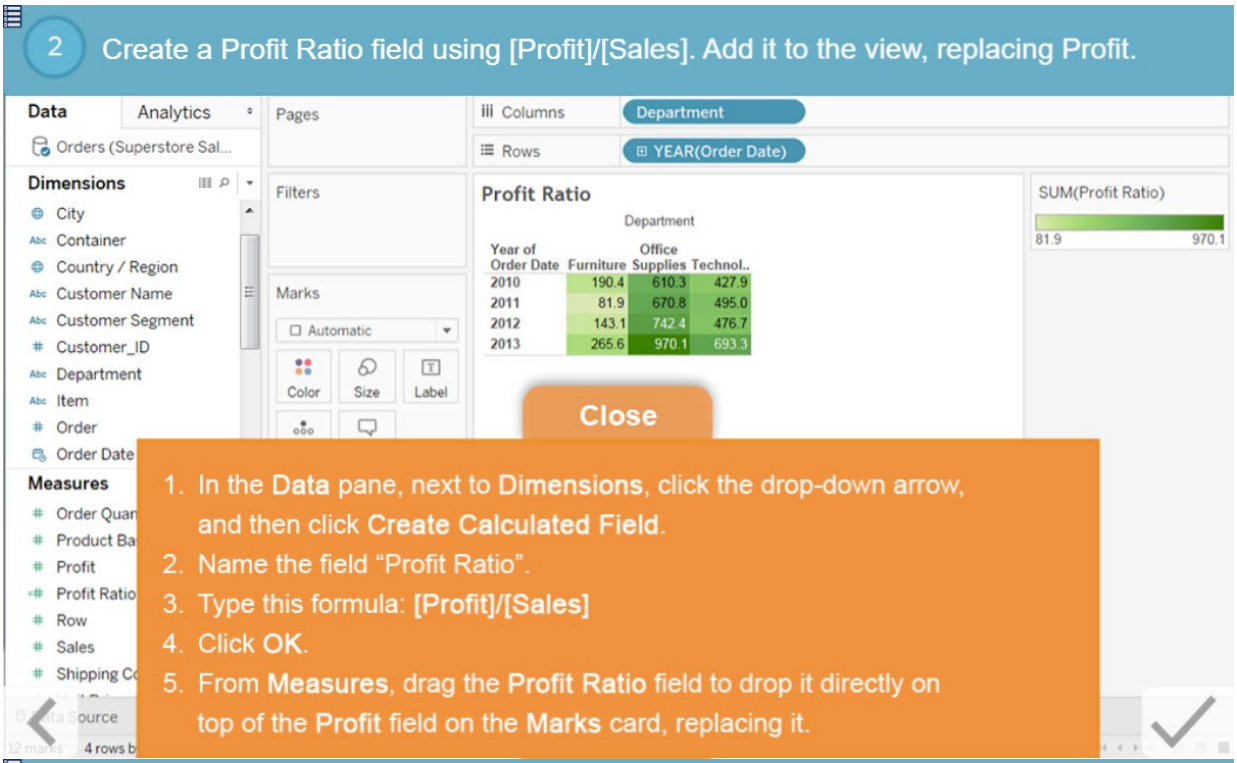

2
Create a view with Days to Ship on Text and Department on Rows.
Pages
Columns
Rows
Department
Filters
Department
Furniture 6,962
Office Supplies 18,588
Technology 8,604
Marks
Automatic
Color
Size
Text
Detail
Tooltip
SUM(Days to S..
Close
1. From Measures, drag Days to Ship to Text on the Marks card.
2. From Dimensions, drag Department to Rows.

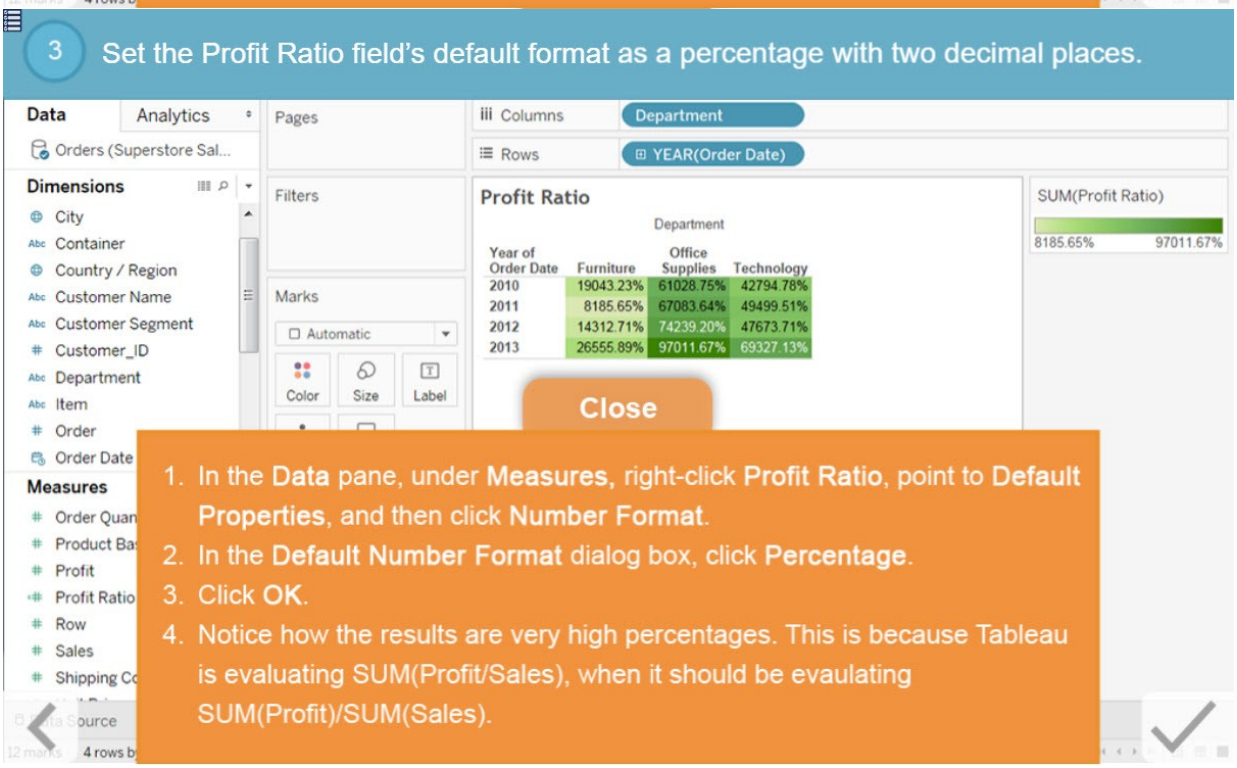

3
Change the aggregation type to Average.
Pages
Columns
Rows
Department
Filters
Department
Furniture 2.01914
Office Supplies 2.01605
Technology 2.08329
Marks
Automatic
Color
Size
Text
Detail
Tooltip
AVG(Days to Sh..
Close
1. On the Marks card, right-click Sum(Days to Ship), point to Measure (Sum), and click Average.
4
Add Category to Rows to the right of Department.
Columns
Rows
Department
Category
Department Category
Furniture Bookcases 2.1376
Chairs & Chairmats 1.9845
Office Furnishings 1.9962
Tables 2.0443
Office Supplies Appliances 2.0599
Binders and Binder Accessories 1.9301
Envelopes 2.2683
Labels 1.9514
Paper 2.0041
Pens & Art Supplies
Rubber Bands
Close
Technology
1. From Dimensions, drag Category to Rows, dropping it to the right of Department.
2. In the view, adjust the column widths by hovering the mouse pointer over the right border of each column, and then click and drag the vertical dotted line to the right.

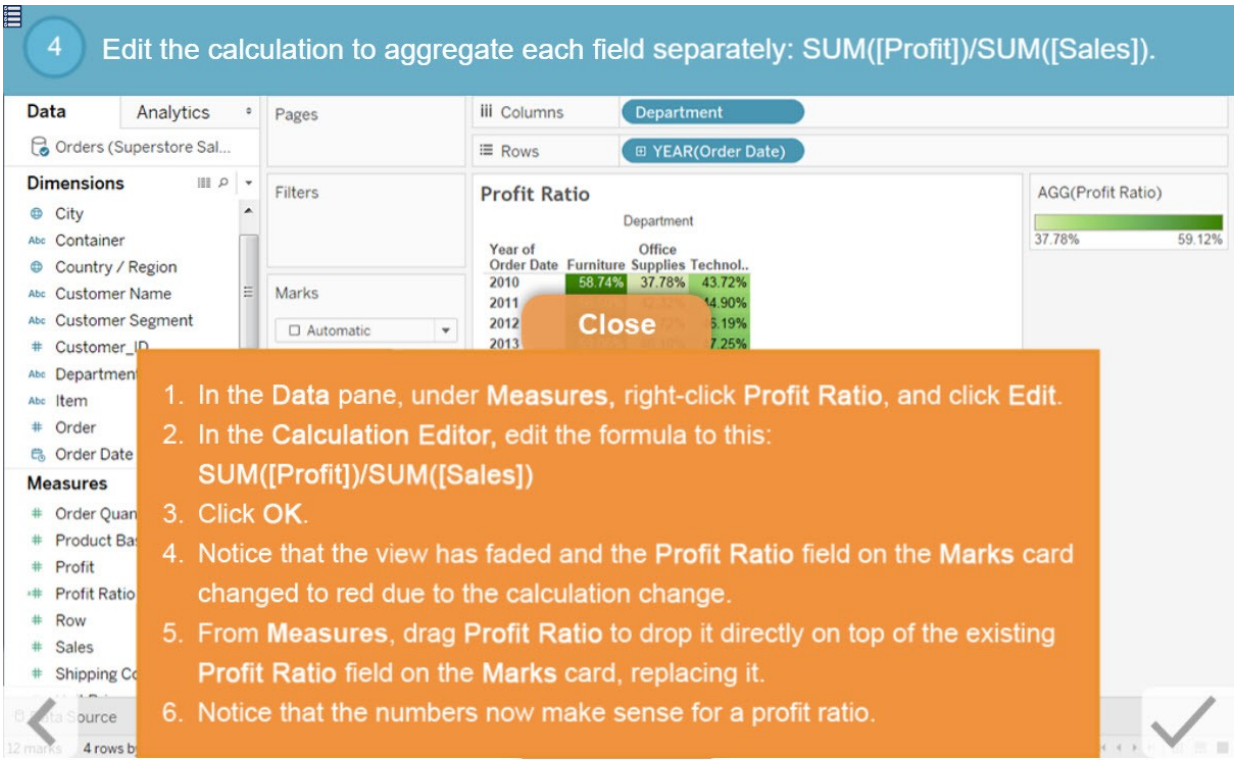

+ a b l e a u
Create a Calculation with Aggregation
Experiment with levels of aggregation in a calculated field.
Start


Open the activity workbook to complete this scenario:
You have data on the profit and sales of your organization's products, and you want to see the profit ratios for each year, broken down by department. You don't have a profit ratio field in your data, so you will need to create it with a calculated field. First, create the calculation without aggregating the fields, and then aggregate each field in the calculation to see how the results change. Good luck!
Data
Analytics
Orders (Superstore Sal...
Dimensions
Category
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Measures
Product Base Margin
Profit
Profit Ratio
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
AGG(Profit Rati..
Columns
Department
Rows
YEAR(Order Date)
Profit Ratio
Department
Year of Order Date
Furniture
Office Supplies
Technol..
2010 58.74% 37.78% 43.72%
2011 56.50% 42.32% 44.90%
2012 59.12% 42.72% 46.19%
2013 59.06% 46.10% 47.25%
AGG(Profit Ratio)
37.78%
59.12%
Data Source
Profit Ratio
Click to follow the steps.


1
Create a view using Department and Order Date. Add Profit to Color and show the mark labels.
2
Create a Profit Ratio field using [Profit]/[Sales]. Add it to the view, replacing Profit.
3
Set the Profit Ratio field's default format as a percentage with two decimal places.
4
Edit the calculation to aggregate each field separately: SUM([Profit])/SUM([Sales]).
Click each step for a hint!
For help, click a step. Click the check mark when you've finished a step.
1
Create a view using Department and Order Date. Add Profit to Color and show the mark labels.
Data
Analytics
Pages
Columns
Department
Rows
YEAR(Order Date)
Orders (Superstore Sal...
Dimensions
Category
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Measures
Discount
Profit
Row
Sales
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
SUM(Profit)
Profit Ratio
Department
Year of Order Date
Furniture
Office Supplies
Technology
2010 $1,225,579 $584,012 $1,094,433
2011 $1,168,831 $676,915 $1,226,539
2012 $1,599,543 $719,998 $1,389,262
2013 $1,876,244 $1,235,985 $2,020,950
SUM(Profit)
$584,012
$2,020,950
Close
1. From Dimensions, drag Order Date to Rows.
2. From Dimensions, drag Department to Columns.
3. From Measures, drag Profit to Color on the Marks card.
4. On the Analysis menu, click Show Mark Labels.


2
Create a Profit Ratio field using [Profit]/[Sales]. Add it to the view, replacing Profit.
Data
Analytics
Orders (Superstore Sal...
Dimensions
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Measures
Order Quan
Product Ba
Profit
Profit Ratio
Row
Sales
Shipping C
Pages
Filters
Marks
Automatic
Color
Size
Label
Columns
Department
Rows
YEAR(Order Date)
Profit Ratio
Department
Year of Order Date
Furniture
Office Supplies
Technol..
2010 190.4 610.3 427.9
2011 81.9 670.8 495.0
2012 143.1 742.4 476.7
2013 265.6 970.1 693.3
SUM(Profit Ratio)
81.9
970.1
Close
1. In the Data pane, next to Dimensions, click the drop-down arrow, and then click Create Calculated Field.
2. Name the field “Profit Ratio”.
3. Type this formula: [Profit]/[Sales]
4. Click OK.
5. From Measures, drag the Profit Ratio field to drop it directly on top of the Profit field on the Marks card, replacing it.

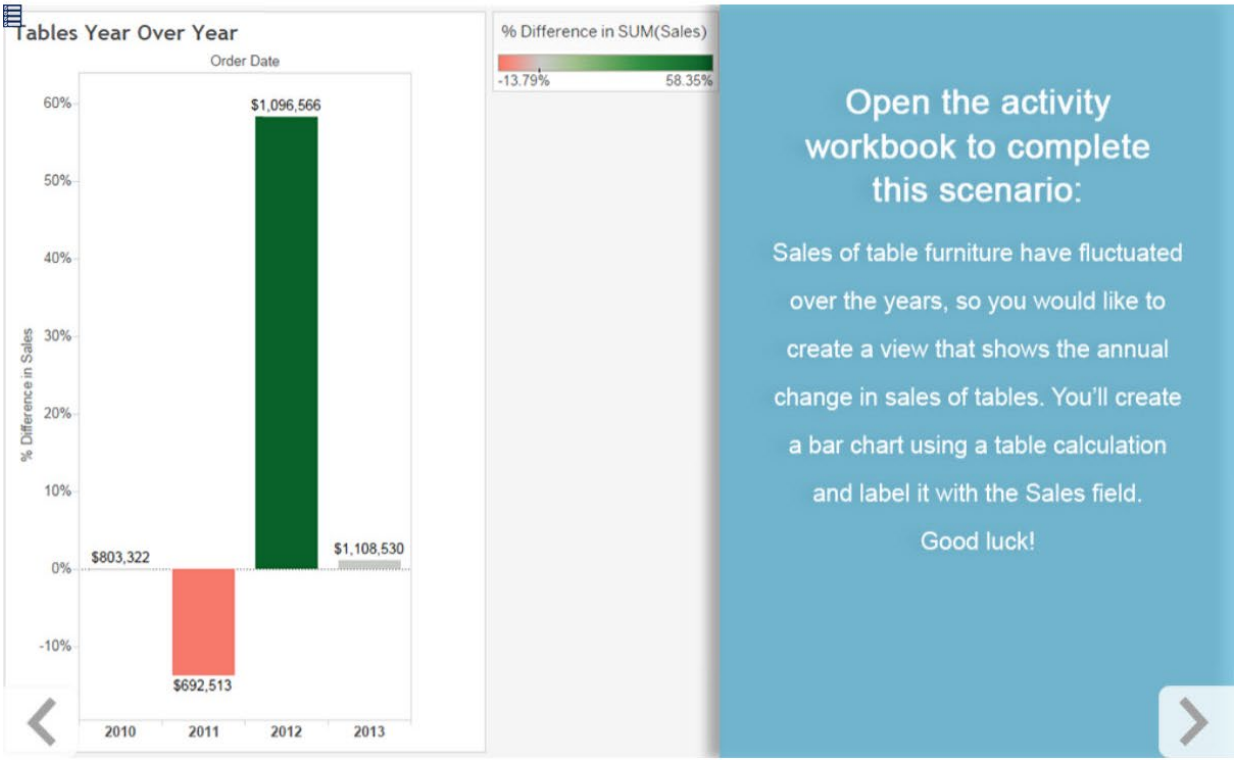

3
Set the Profit Ratio field’s default format as a percentage with two decimal places.
Data
Analytics
Orders (Superstore Sal...
Dimensions
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Measures
Order Quan
Product Ba
Profit
Profit Ratio
Row
Sales
Shipping C
Pages
Filters
Marks
Automatic
Color
Size
Label
Columns
Department
Rows
YEAR(Order Date)
Profit Ratio
Department
Year of Order Date
Furniture
Office Supplies
Technology
2010 19043.23% 61028.75% 42794.78%
2011 8185.65% 67083.64% 49499.51%
2012 14312.71% 74239.20% 47673.71%
2013 26555.89% 97011.67% 69327.13%
SUM(Profit Ratio)
8185.65%
97011.67%
Close
1. In the Data pane, under Measures, right-click Profit Ratio, point to Default Properties, and then click Number Format.
2. In the Default Number Format dialog box, click Percentage.
3. Click OK.
4. Notice how the results are very high percentages. This is because Tableau is evaluating SUM(Profit/Sales), when it should be evaulating SUM(Profit)/SUM(Sales).

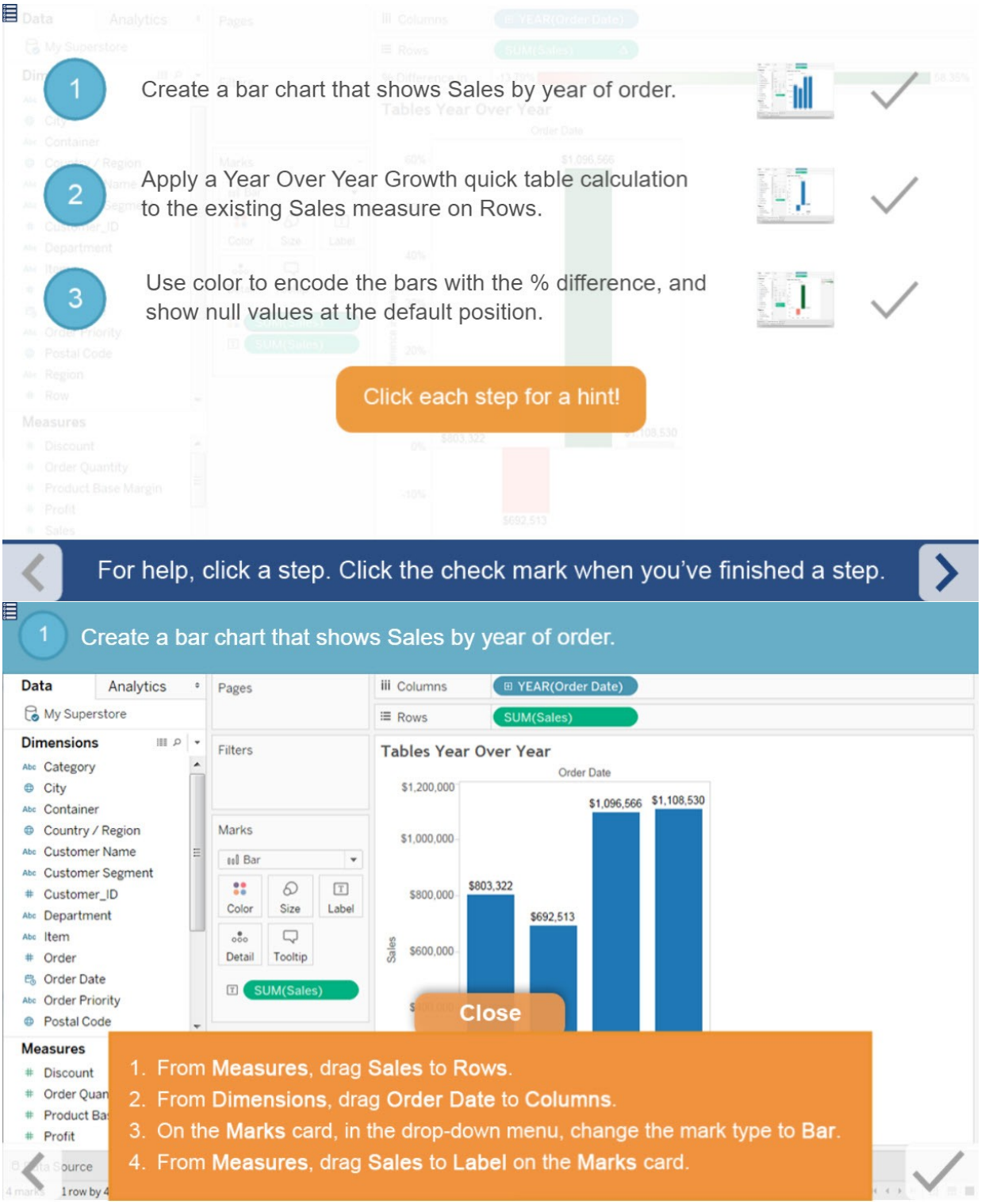

4
Edit the calculation to aggregate each field separately: SUM([Profit])/SUM([Sales]).
Data
Analytics
Orders (Superstore Sal...
Dimensions
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Measures
Order Quan
Product Ba
Profit
Profit Ratio
Row
Sales
Shipping Co
Pages
Filters
Marks
Automatic
Columns
Department
Rows
YEAR(Order Date)
Profit Ratio
Department
Year of Order Date
Furniture
Office Supplies
Technol..
2010
58.74%
37.78%
43.72%
2011
2012
2013
AGG(Profit Ratio)
37.78%
59.12%
Close
1. In the Data pane, under Measures, right-click Profit Ratio, and click Edit.
2. In the Calculation Editor, edit the formula to this: SUM([Profit])/SUM([Sales])
3. Click OK.
4. Notice that the view has faded and the Profit Ratio field on the Marks card changed to red due to the calculation change.
5. From Measures, drag Profit Ratio to drop it directly on top of the existing Profit Ratio field on the Marks card, replacing it.
6. Notice that the numbers now make sense for a profit ratio.

Apply a Year Over Year Table Calculation

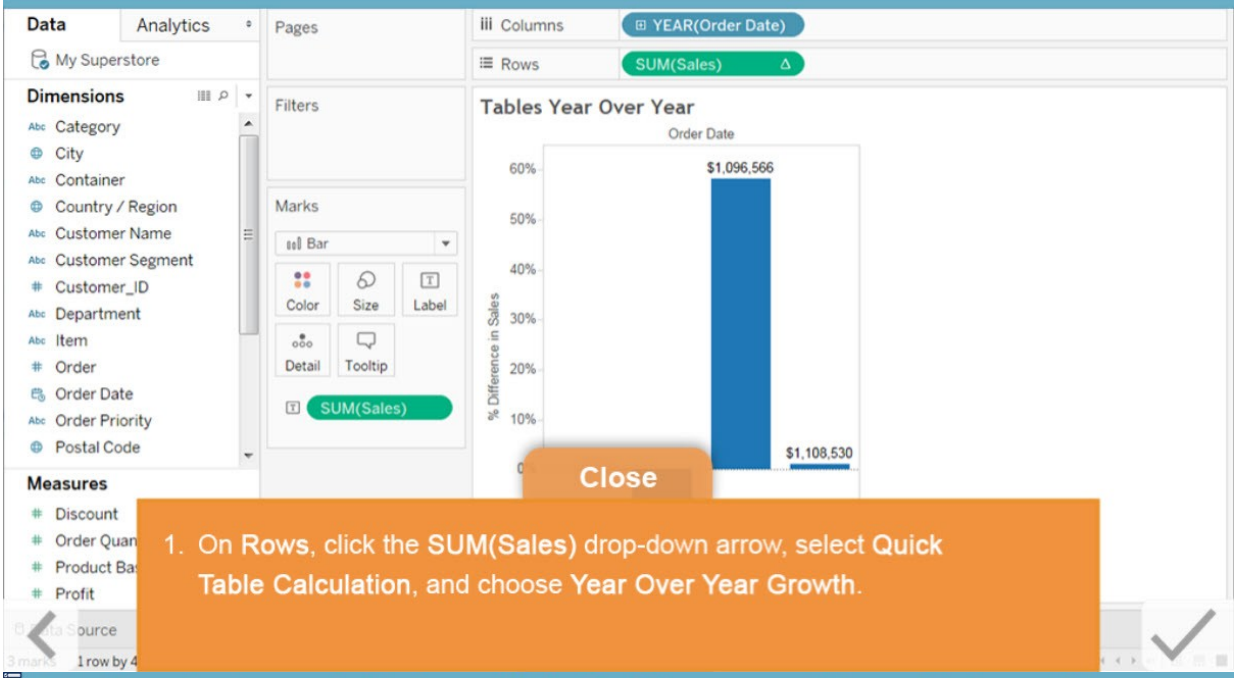
Show year over year change within a view.

Start



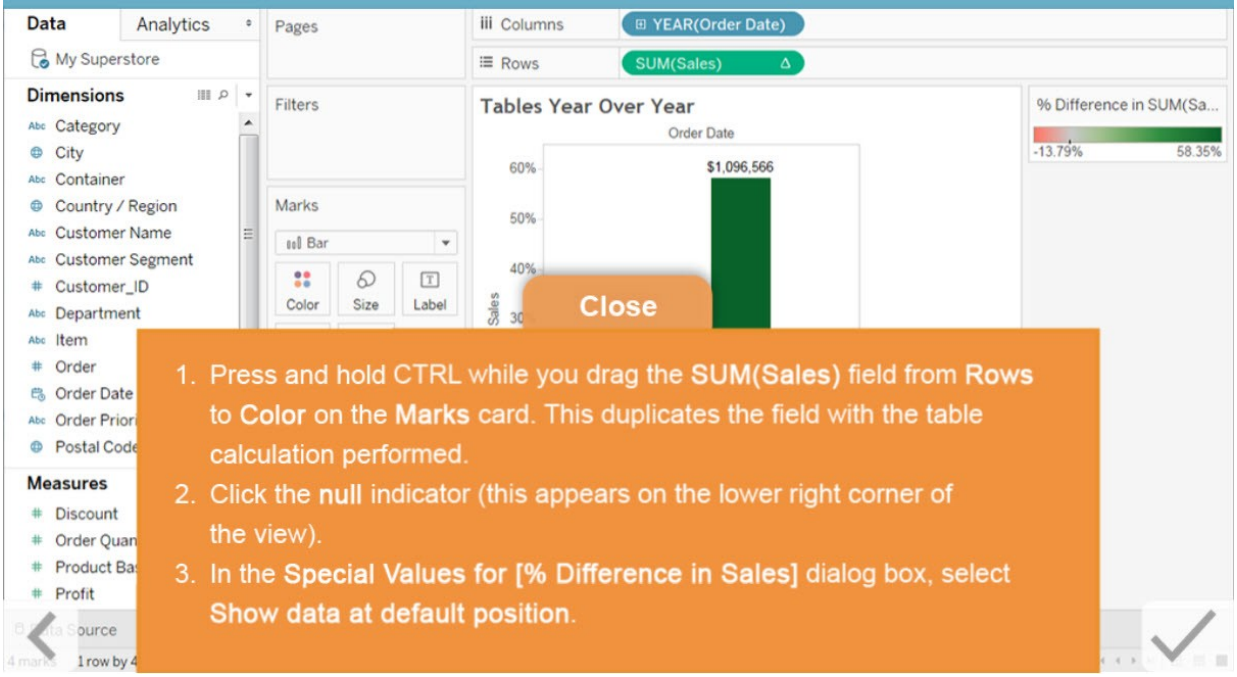

1
Create a bar chart that shows Sales by year of order.
2
Apply a Year Over Year Growth quick table calculation to the existing Sales measure on Rows.
3
Use color to encode the bars with the % difference, and show null values at the default position.
Click each step for a hint!
For help, click a step. Click the check mark when you've finished a step.
1
Create a bar chart that shows Sales by year of order.
Data
Analytics
My Superstore
Dimensions
Category
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Order Priority
Postal Code
Measures
Discount
Order Quan
Product Ba
Profit
Pages
Filters
Marks
Bar
Color
Size
Label
Detail
Tooltip
SUM(Sales)
Columns
YEAR(Order Date)
Rows
SUM(Sales)
Tables Year Over Year
Order Date
$1,200,000
$1,000,000
$800,000
$600,000
Sales
$803,322
$692,513
$1,096,566
$1,108,530
Close
1. From Measures, drag Sales to Rows.
2. From Dimensions, drag Order Date to Columns.
3. On the Marks card, in the drop-down menu, change the mark type to Bar.
4. From Measures, drag Sales to Label on the Marks card.

2 Apply a Year Over Year Growth quick table calculation to the existing Sales measure on Rows.



1. On **Rows**, click the **SUM(Sales)** drop-down arrow, select **Quick Table Calculation**, and choose **Year Over Year Growth**.

3 Use color to encode the bars with the % difference, and show null values at the default position.



1. Press and hold CTRL while you drag the **SUM(Sales)** field from **Rows** to **Color** on the **Marks** card. This duplicates the field with the table calculation performed.
2. Click the **null** indicator (this appears on the lower right corner of the view).
3. In the **Special Values for [% Difference in Sales]** dialog box, select **Show data at default position**.

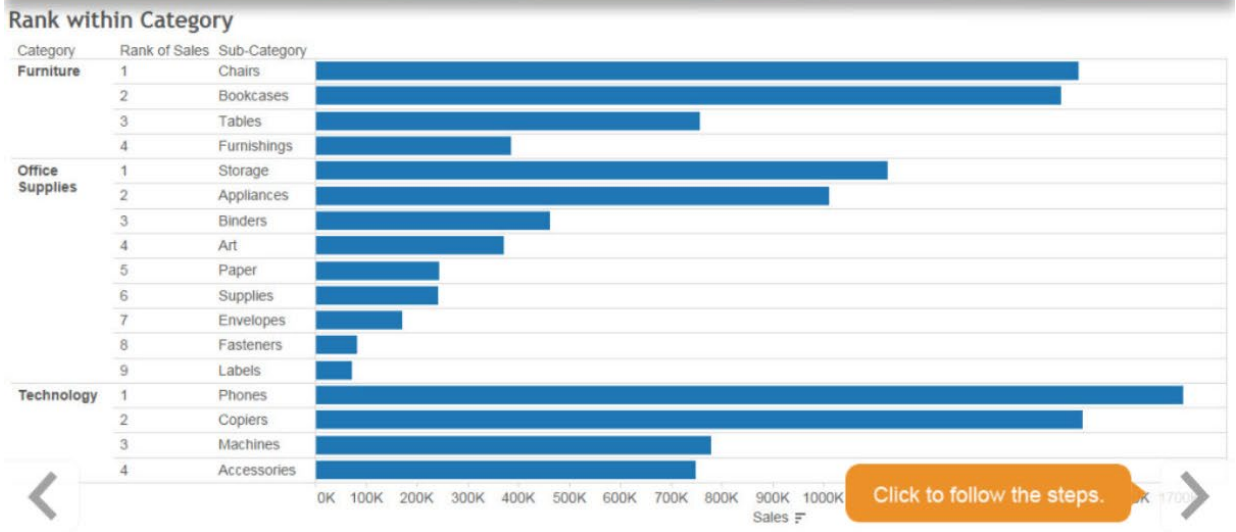
Apply a Rank Table Calculation

Build three views using the Rank table calculation.

Start

Open the activity workbook to complete this scenario:

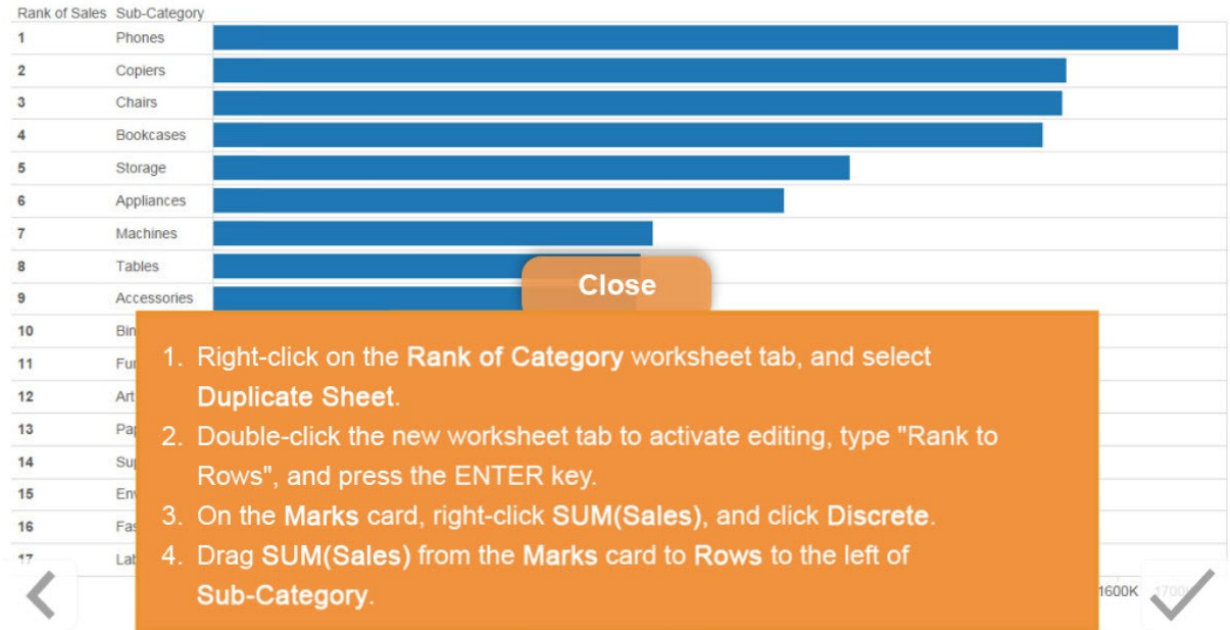
You want to compare the sales of each sub-category in a few different ways. You'll want to create three views: a sorted bar chart labeled with rank, the same view but with rank as a header, and the same view again but including category and ranking by pane. Good luck!




Rank within Category
1
Create a sorted view that shows the sales of each sub-category, with the rank on Label.
2
Duplicate the first view, and move the label to the header.
3
Duplicate the second view, and add Category to the header.
4
Change the rank to show the rank of each product within its category.
Click each step for a hint!
For help, click a step. Click the check mark when you've finished a step.
1
Create a sorted view that shows the sales of each sub-category, with the rank on Label.
Rank of Category
Sub-Category
Phones
Copiers
Chairs
Bookcases
Storage
Appliances
Machines
Tables
Accessories
Binders
Furnishings
Art
Paper
Supplies
Envelopes
Fasteners
Close
1. From Measures, drag Sales to Columns.
2. From Dimensions, drag Sub-Category to Rows.
3. Hover over the Sales axis and click the Sort icon to sort in descending order.
4. From Measures, drag Sales to Label on the Marks card.
5. On the Marks card, right-click SUM(Sales), select Quick Table Calculation, and click Rank.

2 Duplicate the first view, and move the label to the header.

Rank to Rows

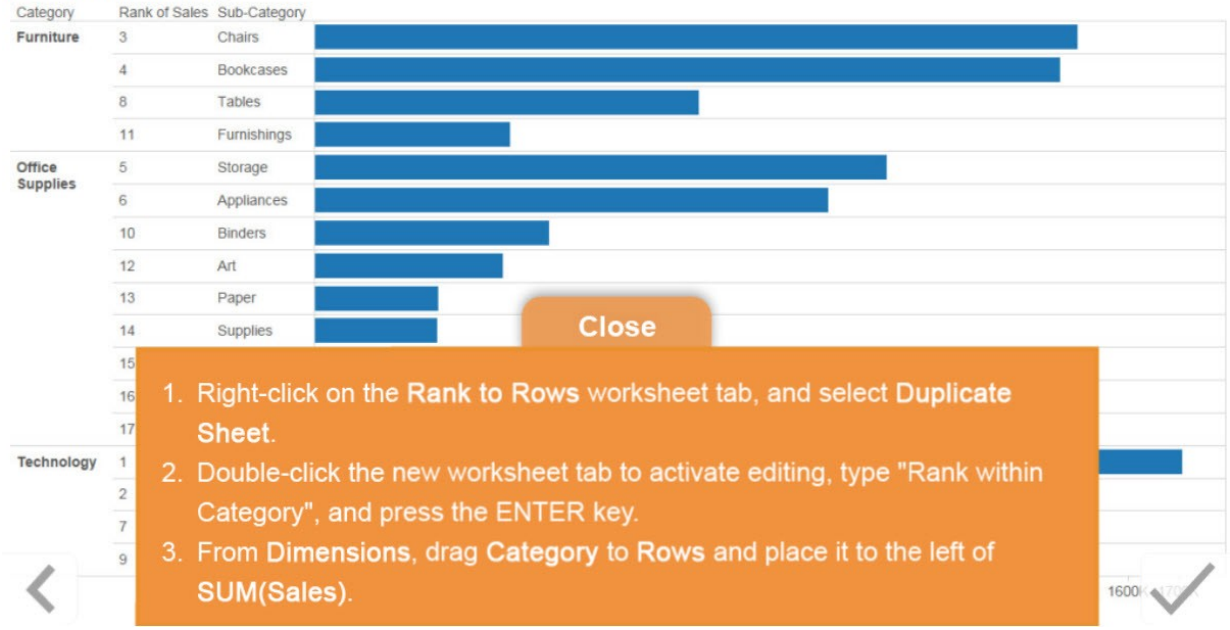


Close

1. Right-click on the **Rank of Category** worksheet tab, and select **Duplicate Sheet**.
2. Double-click the new worksheet tab to activate editing, type "Rank to Rows", and press the ENTER key.
3. On the **Marks** card, right-click **SUM(Sales)**, and click **Discrete**.
4. Drag **SUM(Sales)** from the **Marks** card to **Rows** to the left of **Sub-Category**.

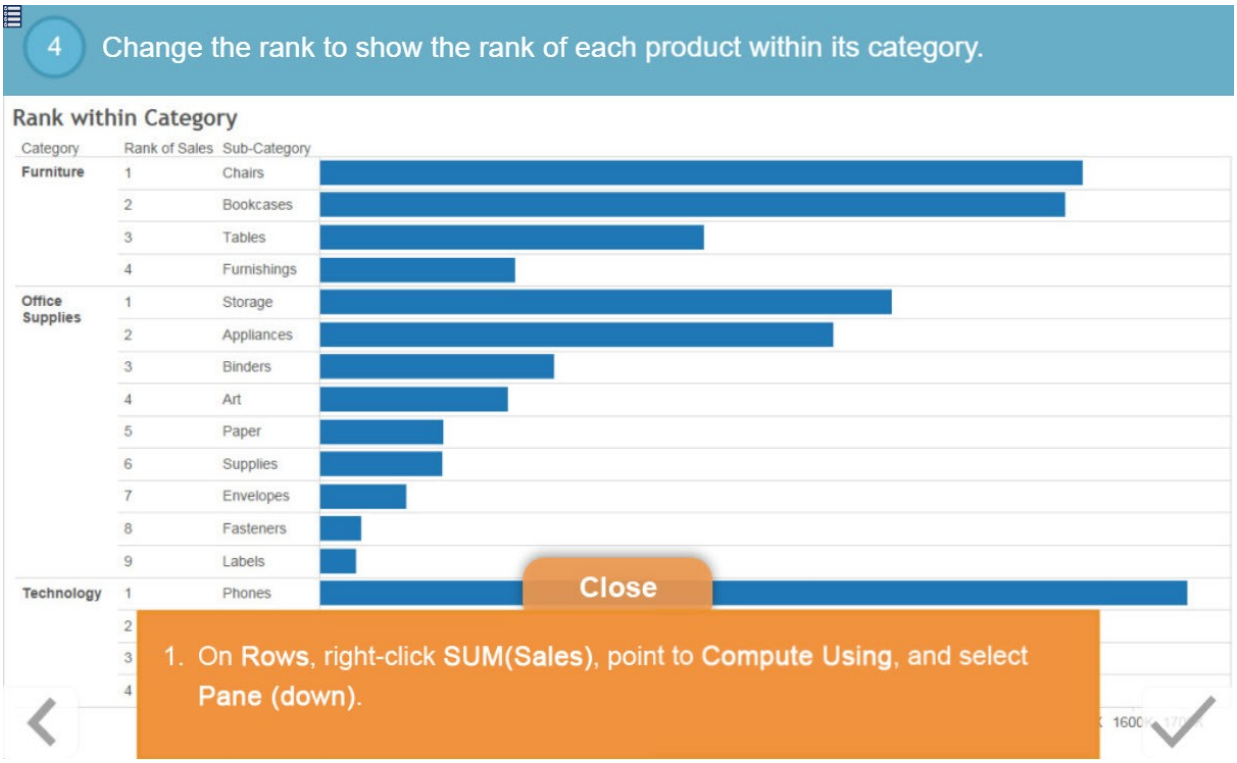
3 Duplicate the second view, and add Category to the header.

Rank within Category

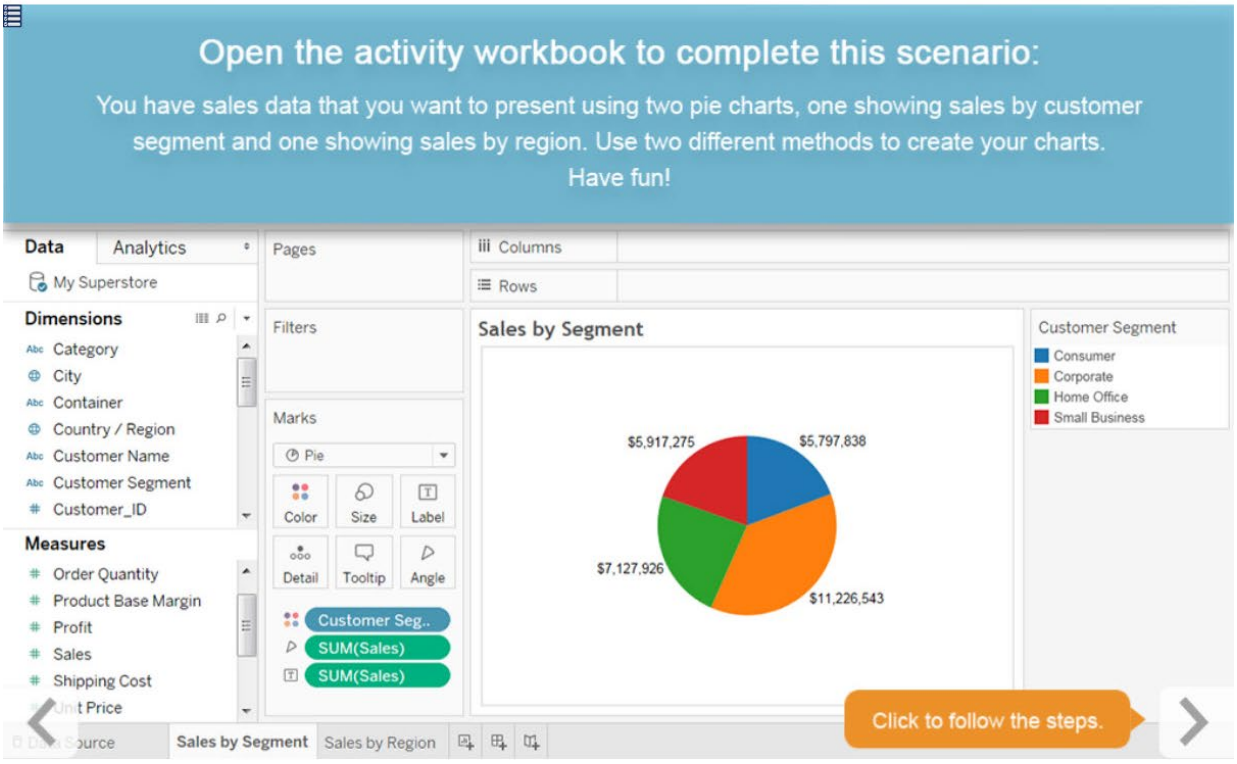


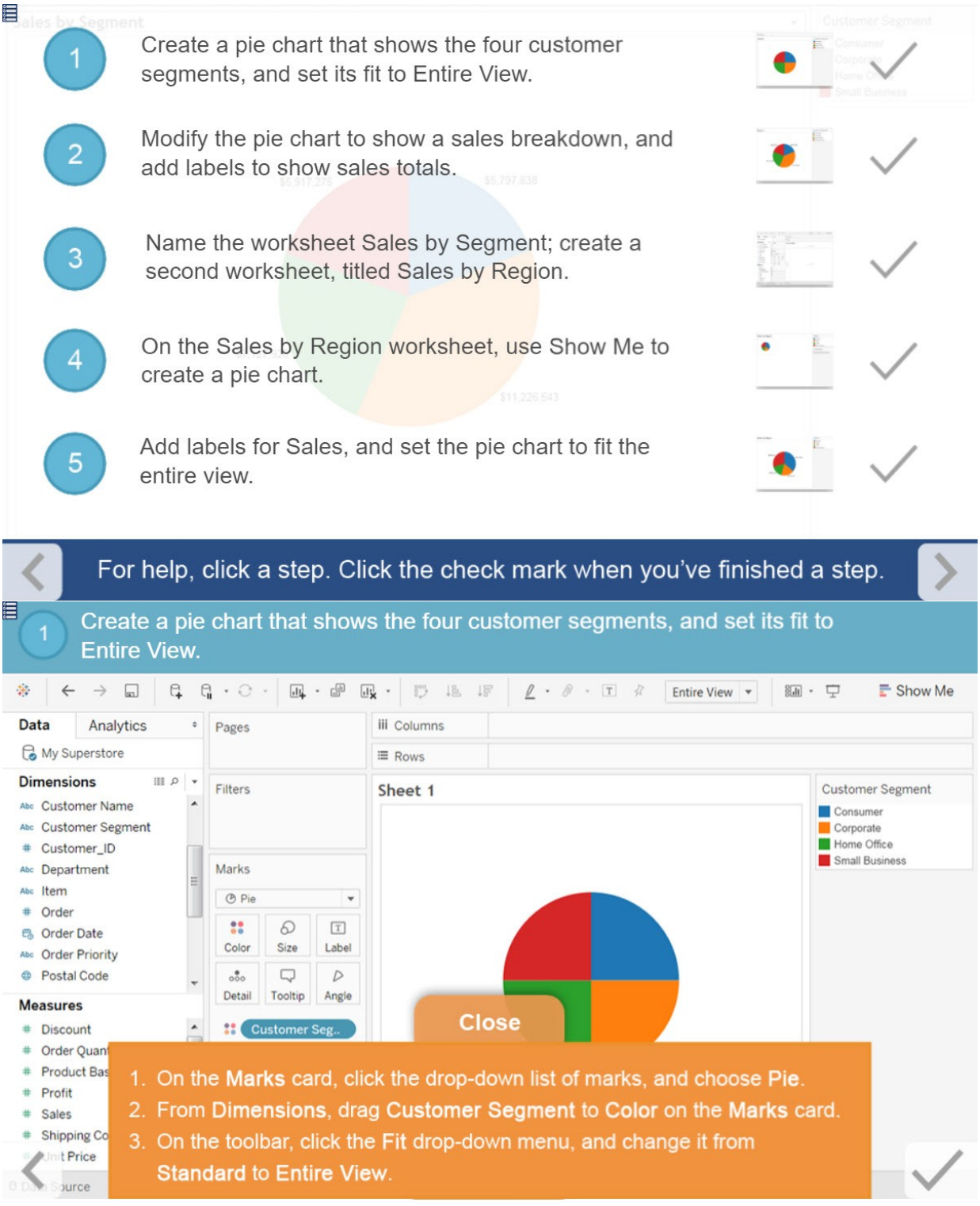
Close

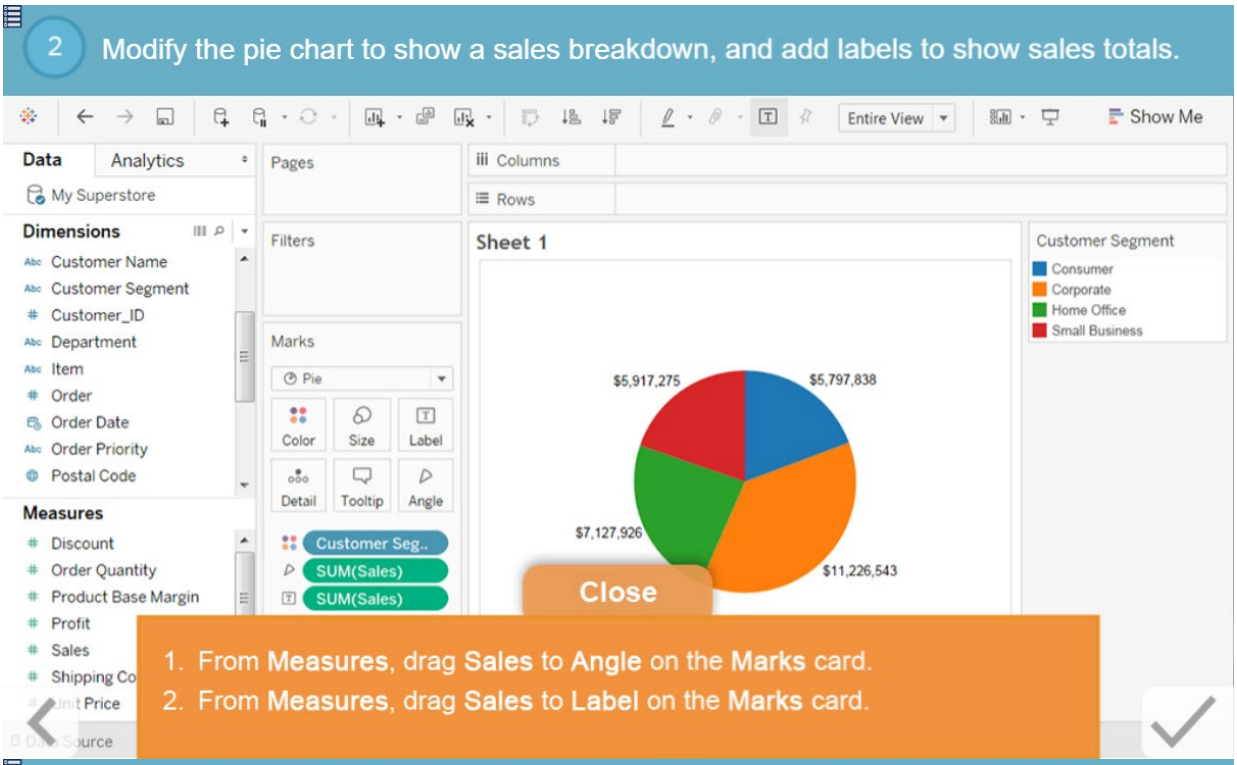
1. Right-click on the **Rank to Rows** worksheet tab, and select **Duplicate Sheet**.
2. Double-click the new worksheet tab to activate editing, type "Rank within Category", and press the ENTER key.
3. From **Dimensions**, drag **Category** to **Rows** and place it to the left of **SUM(Sales)**.

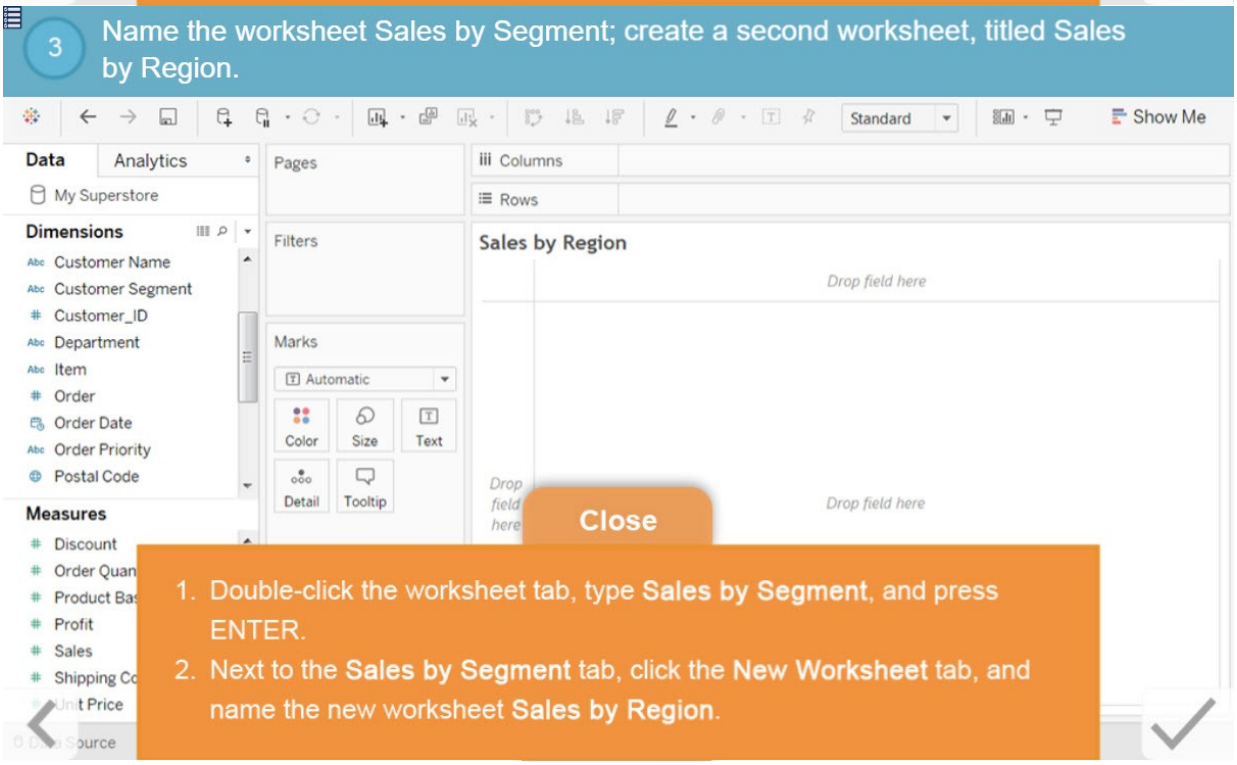

4
Change the rank to show the rank of each product within its category.
Rank within Category
Category
Rank of Sales
Sub-Category
Furniture
1
Chairs
2
Bookcases
3
Tables
4
Furnishings
Office Supplies
1
Storage
2
Appliances
3
Binders
4
Art
5
Paper
6
Supplies
7
Envelopes
8
Fasteners
9
Labels
Technology
1
Phones
Close
1. On Rows, right-click SUM(Sales), point to Compute Using, and select Pane (down).

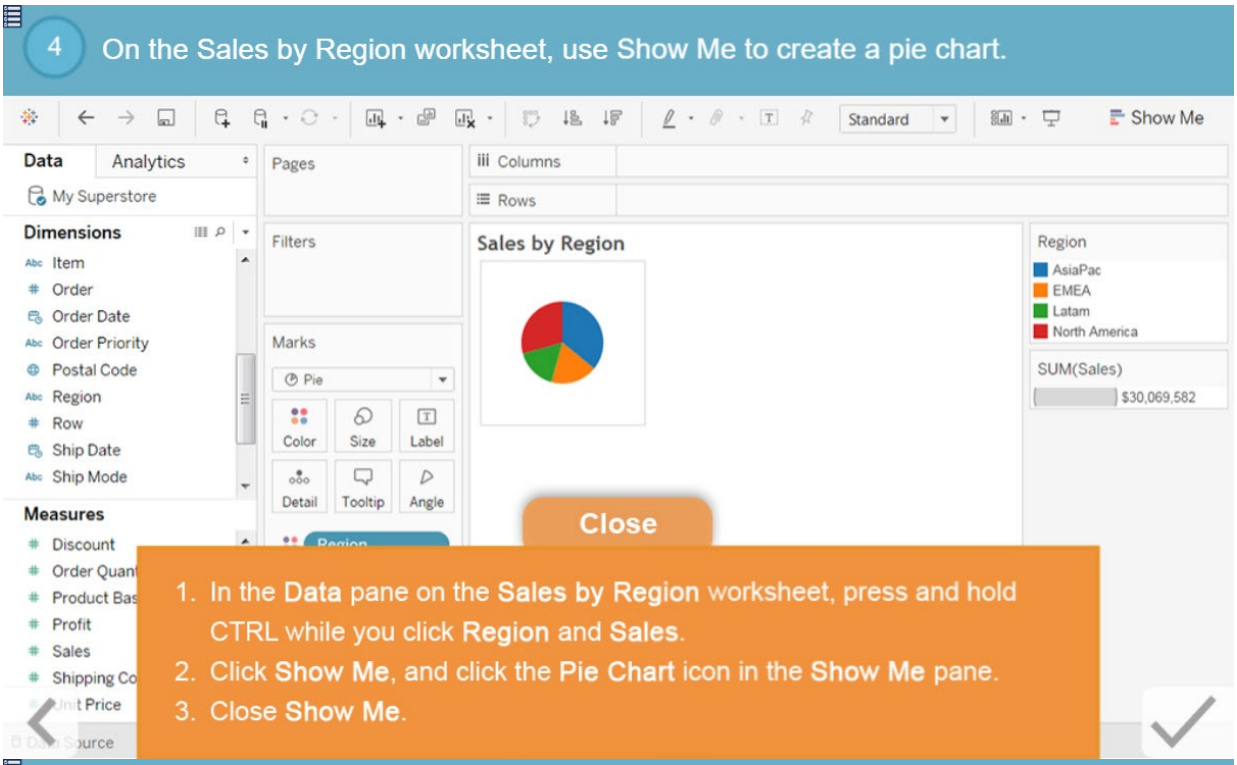

Build a Pie Chart
Use two methods to show Superstore sales.
Start

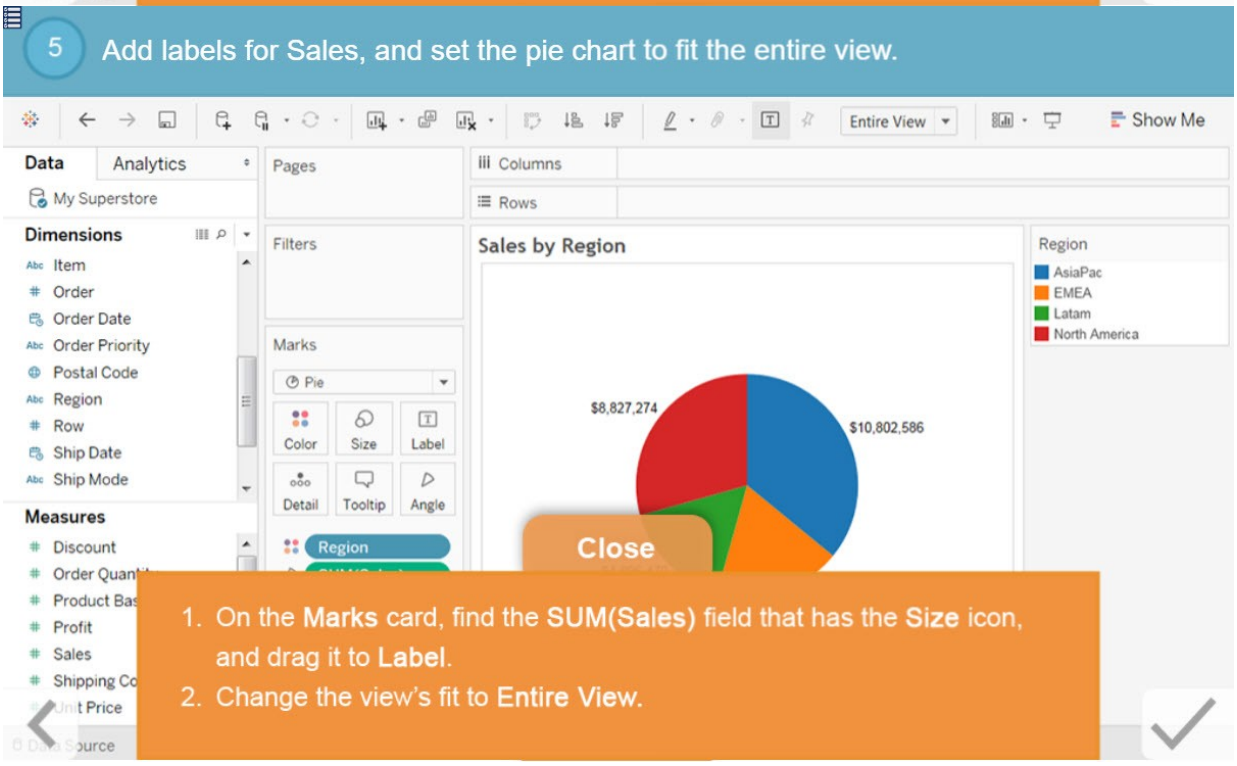

Open the activity workbook to complete this scenario:
You have sales data that you want to present using two pie charts, one showing sales by customer segment and one showing sales by region. Use two different methods to create your charts. Have fun!
Data
Analytics
My Superstore
Dimensions
Category
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Measures
Order Quantity
Product Base Margin
Profit
Sales
Shipping Cost
Pages
Columns
Rows
Filters
Marks
Pie
Color
Size
Label
Detail
Tooltip
Angle
Customer Seg..
SUM(Sales)
SUM(Sales)
Sales by Segment
$5,917,275
$5,797,838
$7,127,926
$11,226,543
Customer Segment
Consumer
Corporate
Home Office
Small Business
Click to follow the steps.
Sales by Segment
Sales by Region


1
Create a pie chart that shows the four customer segments, and set its fit to Entire View.
2
Modify the pie chart to show a sales breakdown, and add labels to show sales totals.
3
Name the worksheet Sales by Segment; create a second worksheet, titled Sales by Region.
4
On the Sales by Region worksheet, use Show Me to create a pie chart.
5
Add labels for Sales, and set the pie chart to fit the entire view.
For help, click a step. Click the check mark when you've finished a step.
1
Create a pie chart that shows the four customer segments, and set its fit to Entire View.
Entire View
Show Me
Data
Analytics
My Superstore
Dimensions
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Order Priority
Postal Code
Measures
Discount
Profit
Sales
Pages
Columns
Rows
Filters
Marks
Pie
Color
Size
Label
Detail
Tooltip
Angle
Customer Seg..
Sheet 1
Customer Segment
Consumer
Corporate
Home Office
Small Business
Close
1. On the Marks card, click the drop-down list of marks, and choose Pie.
2. From Dimensions, drag Customer Segment to Color on the Marks card.
3. On the toolbar, click the Fit drop-down menu, and change it from Standard to Entire View.


2
Modify the pie chart to show a sales breakdown, and add labels to show sales totals.
Entire View
Show Me
Data
Analytics
My Superstore
Dimensions
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Order Priority
Postal Code
Measures
Discount
Order Quantity
Product Base Margin
Profit
Sales
Shipping Co
Unit Price
Pages
Filters
Marks
Pie
Color
Size
Label
Detail
Tooltip
Angle
Customer Seg..
SUM(Sales)
SUM(Sales)
Columns
Rows
Sheet 1
$5,917,275
$5,797,838
$7,127,926
$11,226,543
Customer Segment
Consumer
Corporate
Home Office
Small Business
Close
1. From Measures, drag Sales to Angle on the Marks card.
2. From Measures, drag Sales to Label on the Marks card.

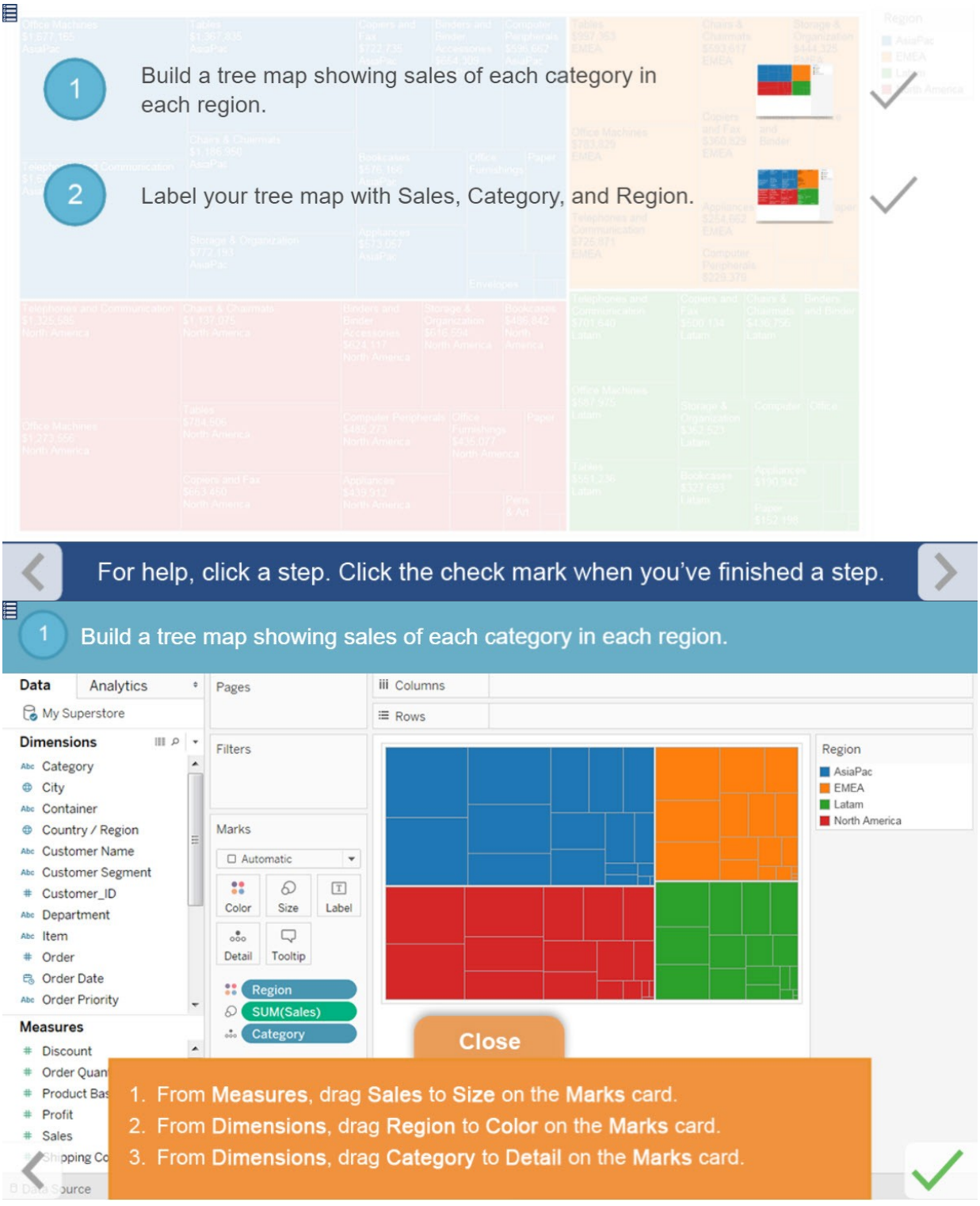

3
Name the worksheet Sales by Segment; create a second worksheet, titled Sales by Region.
Standard
Show Me
Data
Analytics
My Superstore
Dimensions
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Order Priority
Postal Code
Measures
Discount
Order Quan
Product Bas
Profit
Sales
Shipping Co
Unit Price
Pages
Filters
Marks
Automatic
Color
Size
Text
Detail
Tooltip
Columns
Rows
Sales by Region
Drop field here
Drop field here
Drop field here
Close
1. Double-click the worksheet tab, type Sales by Segment, and press ENTER.
2. Next to the Sales by Segment tab, click the New Worksheet tab, and name the new worksheet Sales by Region.

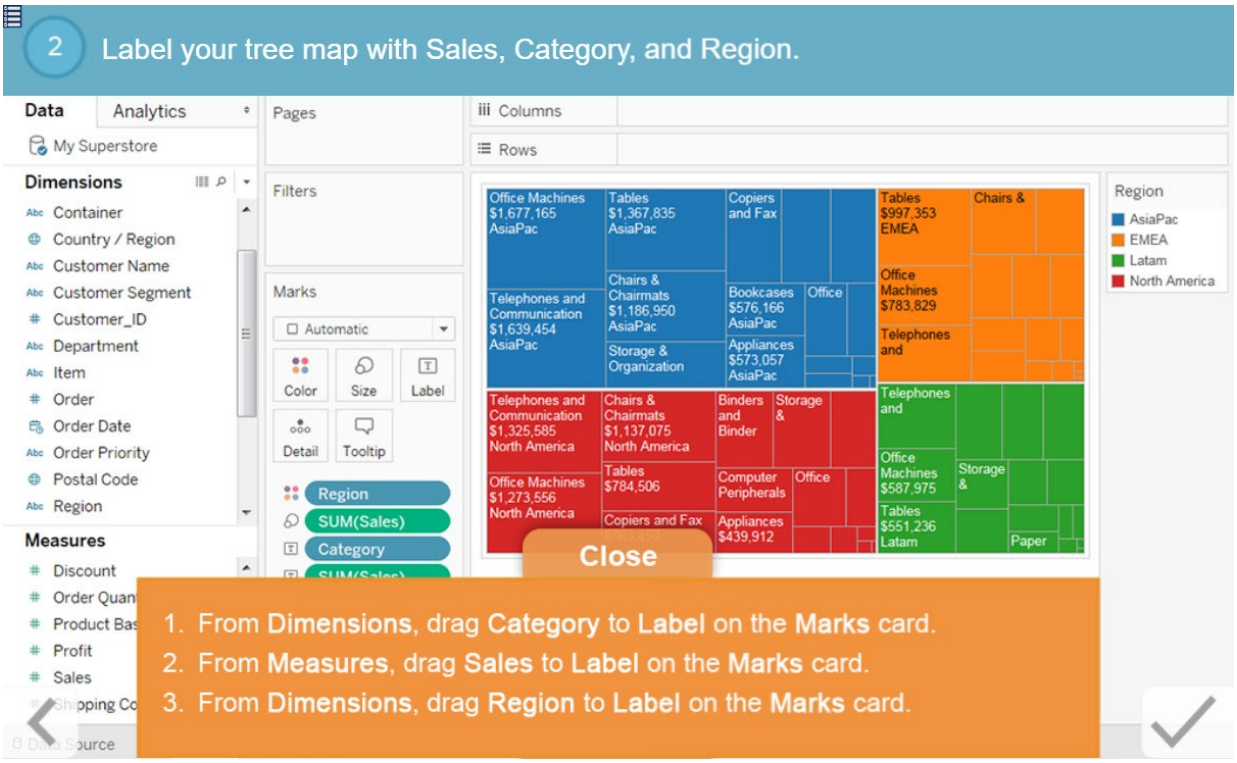

4
On the Sales by Region worksheet, use Show Me to create a pie chart.
Standard
Show Me
Data
Analytics
My Superstore
Dimensions
Item
Order
Order Date
Order Priority
Postal Code
Region
Row
Ship Date
Ship Mode
Measures
Discount
Profit
Sales
Pages
Filters
Marks
Pie
Color
Size
Label
Detail
Tooltip
Angle
Columns
Rows
Sales by Region
Region
AsiaPac
EMEA
Latam
North America
SUM(Sales)
$30,069,582
Close
1. In the Data pane on the Sales by Region worksheet, press and hold CTRL while you click Region and Sales.
2. Click Show Me, and click the Pie Chart icon in the Show Me pane.
3. Close Show Me.


5
Add labels for Sales, and set the pie chart to fit the entire view.
Entire View
Show Me
Data
Analytics
My Superstore
Dimensions
Item
Order
Order Date
Order Priority
Postal Code
Region
Row
Ship Date
Ship Mode
Measures
Discount
Profit
Sales
Pages
Filters
Marks
Pie
Color
Size
Label
Detail
Tooltip
Angle
Region
Columns
Rows
Sales by Region
$8,827,274
$10,802,586
Region
AsiaPac
EMEA
Latam
North America
Close
1. On the Marks card, find the SUM(Sales) field that has the Size icon, and drag it to Label.
2. Change the view's fit to Entire View.


+ a b | e a u
Build a Tree Map
Use a tree map to see the relative sales of products across regions.
Start


Open the activity workbook to complete this scenario:
You're looking at overall sales data, and you need to see the relative contribution of each product category and region to total sales. To determine this, you'll build a tree map. Good luck!
Office Machines $1,677,165 AsiaPac
Tables $1,367,835 AsiaPac
Copiers and Fax $722,735 AsiaPac
Binders and Binder
Chairs & Chairmats $1,186,950 AsiaPac
Telephones and Communication $1,639,454 AsiaPac
Bookcases $576,166 AsiaPac
Office
Storage & Organization $772,193 AsiaPac
Appliances $573,057 AsiaPac
Tables $997,353 EMEA
Chairs & Chairmats $593,617 EMEA
Storage &
Office Machines $783,829 EMEA
Copiers and Fax
Binders and Binder
Office
Telephones and Communication $725,871 EMEA
Appliances $254,662
Computer Peripherals
Telephones and Communication $1,325,585 North America
Chairs & Chairmats $1,137,075 North America
Binders and Binder Accessories $624,117 North America
Storage &
Office Machines $1,273,556 North America
Tables $784,506 North America
Computer Peripherals $485,273
Office
Copiers and Fax $663,450 North America
Appliances $439,912 North America
Pens & Art
Telephones and Communication $701,640 Latam
Copiers and Fax $500,134 Latam
Chairs &
Binders and Binder
Office Machines $587,975 Latam
Storage &
Office
Tables $551,236 Latam
Bookcases $327,693 Latam
Paper
Region
AsiaPac
EMEA
Latam
North America
Click to follow the steps.


1
Build a tree map showing sales of each category in each region.
2
Label your tree map with Sales, Category, and Region.
For help, click a step. Click the check mark when you've finished a step.
1
Build a tree map showing sales of each category in each region.
Data
Analytics
My Superstore
Dimensions
Category
City
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Order Priority
Measures
Discount
Order Quan
Product Bas
Profit
Sales
Pages
Columns
Rows
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Region
SUM(Sales)
Category
Region
AsiaPac
EMEA
Latam
North America
Close
1. From Measures, drag Sales to Size on the Marks card.
2. From Dimensions, drag Region to Color on the Marks card.
3. From Dimensions, drag Category to Detail on the Marks card.


2
Label your tree map with Sales, Category, and Region.
Data
Analytics
My Superstore
Dimensions
Container
Country / Region
Customer Name
Customer Segment
Customer_ID
Department
Item
Order
Order Date
Order Priority
Postal Code
Region
Measures
Discount
Order Quan
Product Bas
Profit
Sales
Shipping Co
Pages
Filters
Marks
Automatic
Color
Size
Label
Detail
Tooltip
Region
SUM(Sales)
Category
Columns
Rows
Office Machines $1,677,165 AsiaPac
Tables $1,367,835 AsiaPac
Copiers and Fax
Telephones and Communication $1,639,454 AsiaPac
Chairs & Chairmats $1,186,950 AsiaPac
Bookcases $576,166 AsiaPac
Office
Storage & Organization
Appliances $573,057 AsiaPac
Tables $997,353 EMEA
Chairs &
Office Machines $783,829
Telephones and
Telephones and Communication $1,325,585 North America
Chairs & Chairmats $1,137,075 North America
Binders and Binder
Storage &
Office Machines $1,273,556 North America
Tables $784,506
Computer Peripherals
Office
Copiers and Fax
Appliances $439,912
Telephones and
Office Machines $587,975
Storage &
Tables $551,236 Latam
Paper
Region
AsiaPac
EMEA
Latam
North America
Close
1. From Dimensions, drag Category to Label on the Marks card.
2. From Measures, drag Sales to Label on the Marks card.
3. From Dimensions, drag Region to Label on the Marks card.

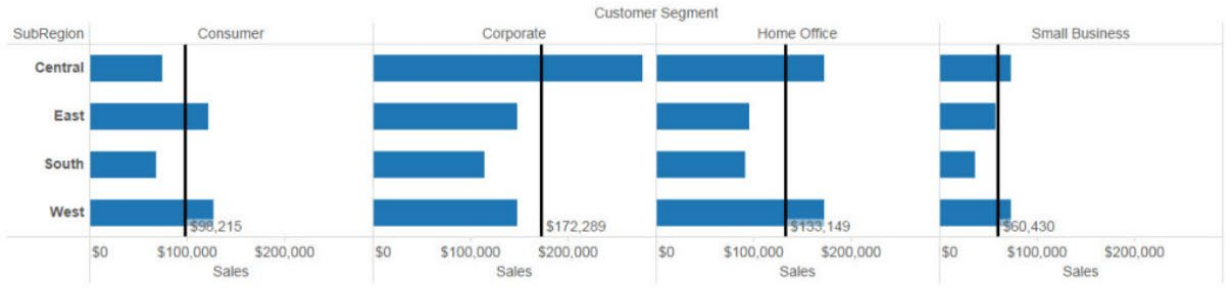
Add Two Types of Reference Lines

Highlight sales compared to quota and sales compared to average sales.

Start

Open the activity workbook to complete this scenario:

You have a view of sales by region, and you want to show how each region is doing compared to a $500,000 quota. You also want to create another view that compares sales in each customer segment to the average. In both views, use reference lines. Good luck!

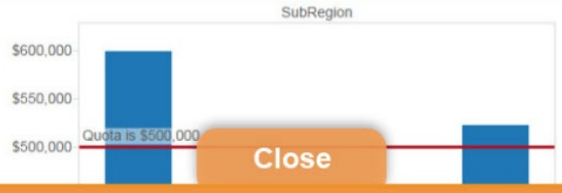


Click to follow the steps.

1. Add a reference line labeled “Quota is $500,000” to the view.
2. Duplicate the view, name the new sheet Average Line, and remove the reference line.
3. Edit the Average Line sheet to show sales in each customer segment for each sub-region.
4. Create an Average reference line, labeled with the value.

For help, click a step. Click the check mark when you’ve finished a step.

1 Add a reference line labeled “Quota is $500,000” to the view.



Close

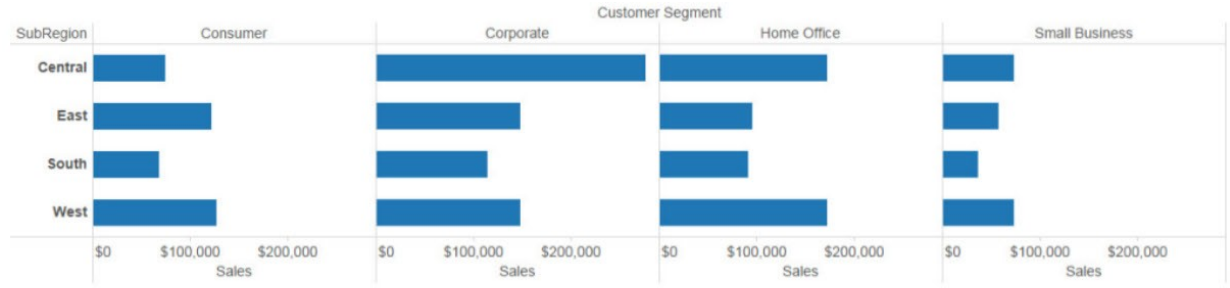
1. On the worksheet named **Reference Line**, right-click the **Sales** axis and select **Add Reference Line**.
2. In the dialog box, set the values as shown below:
   a. Reference Type: Line
   b. Scope: Entire Table
   c. Line Value: 500,000 Constant. NOTE: First, select Constant on the drop-down list, and then type in the text box.
   d. Line Label: Custom "Quota is <Value>". NOTE: First, select Custom on the drop-down list, type "Quota is " in the text box, and then use the right arrow to select <Value> in the list.
   e. Formatting: Thick Red Line, no fill above or below.
3. Click **OK**.

2 Duplicate the view, name the new sheet Average Line, and remove the reference line.

Close

1. Right-click the **Reference Line** tab, and click **Duplicate Sheet**.
2. Double-click **Sheet 2**, type "Average Line", and then press ENTER to rename the sheet.
3. Right-click the existing reference line, and choose **Remove**.

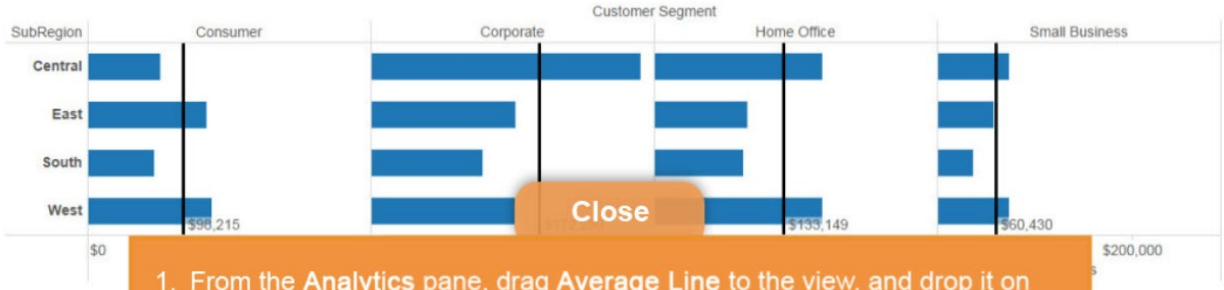
3 Edit the Average Line sheet to show sales in each customer segment for each sub-region.



Close

1. From **Dimensions**, drag **Customer Segment** to the left of **SubRegion** on **Columns**.
2. From **Columns**, drag **SubRegion** to the left of **Sum(Sales)** on **Rows**.
3. From **Rows**, drag **SUM(Sales)** to the right of **Customer Segment** on **Columns**.

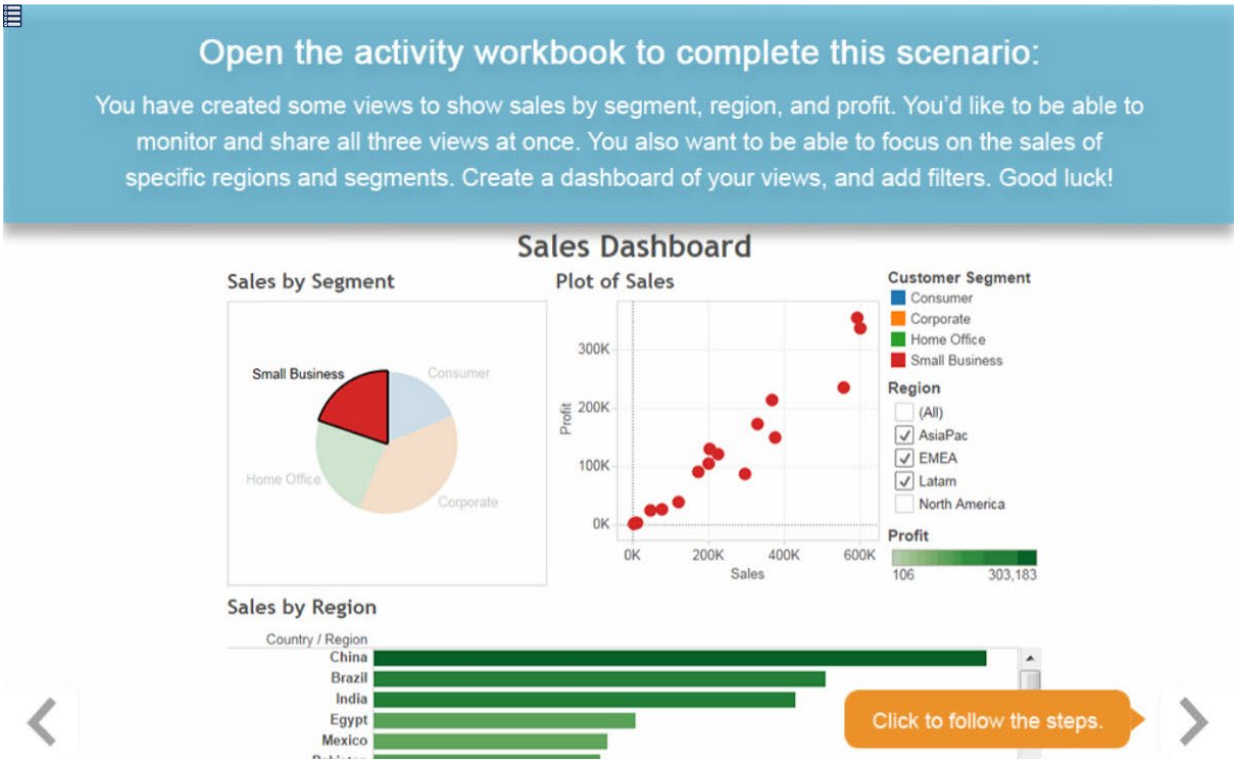
4 Create an Average reference line, labeled with the value.



Close

1. From the **Analytics** pane, drag **Average Line** to the view, and drop it on **Pane**.
2. Right-click on the **Average Reference** line (any of them will work) and click **Edit**.
3. In the **Edit Reference Line, Band, or Box** dialog box, edit the following:
   a. Under **Line**, click the **Label** drop-down menu and select **Value**.
   b. Under **Formatting**, click the **Line** drop-down menu, and choose the black color for the line.
4. Click **OK**.

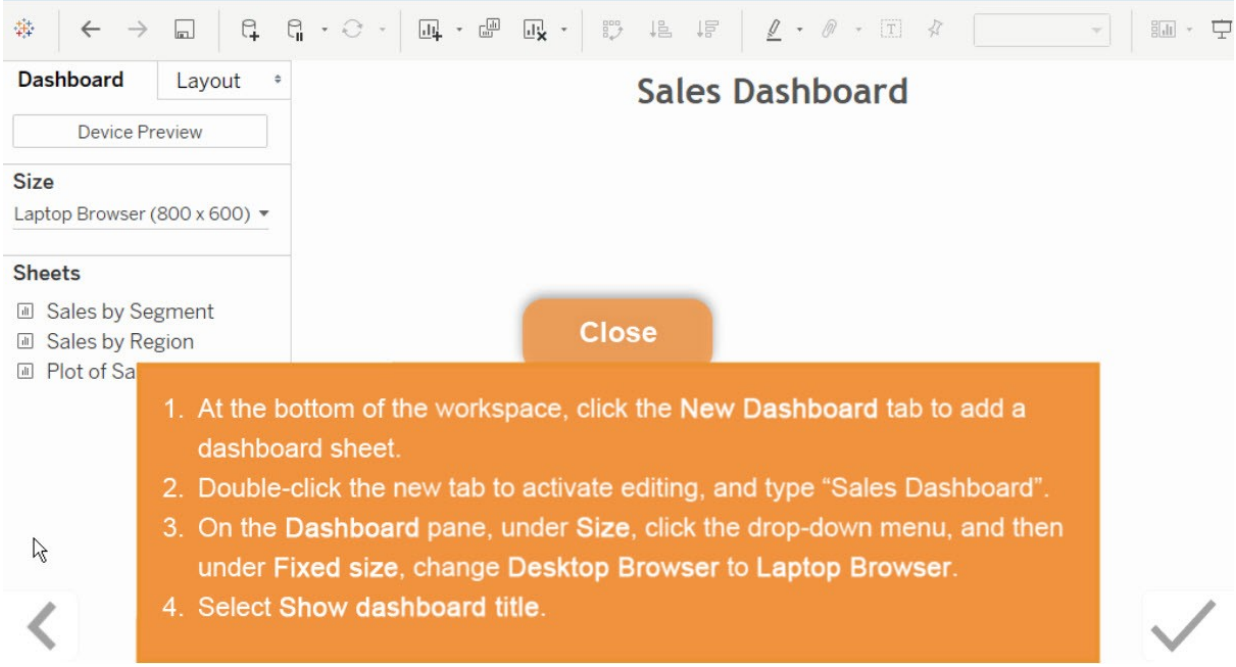

+ a b | e a u
Build an Interactive Dashboard
Combine views and apply filters.
Start


Open the activity workbook to complete this scenario:
You have created some views to show sales by segment, region, and profit. You'd like to be able to monitor and share all three views at once. You also want to be able to focus on the sales of specific regions and segments. Create a dashboard of your views, and add filters. Good luck!
Sales Dashboard
Sales by Segment
Small Business
Consumer
Home Office
Corporate
Plot of Sales
Profit
300K
200K
100K
0K
0K
200K
400K
600K
Sales
Customer Segment
Consumer
Corporate
Home Office
Small Business
Region
(All)
AsiaPac
EMEA
Latam
North America
Profit
106
303,183
Sales by Region
Country / Region
China
Brazil
India
Egypt
Mexico
Click to follow the steps.

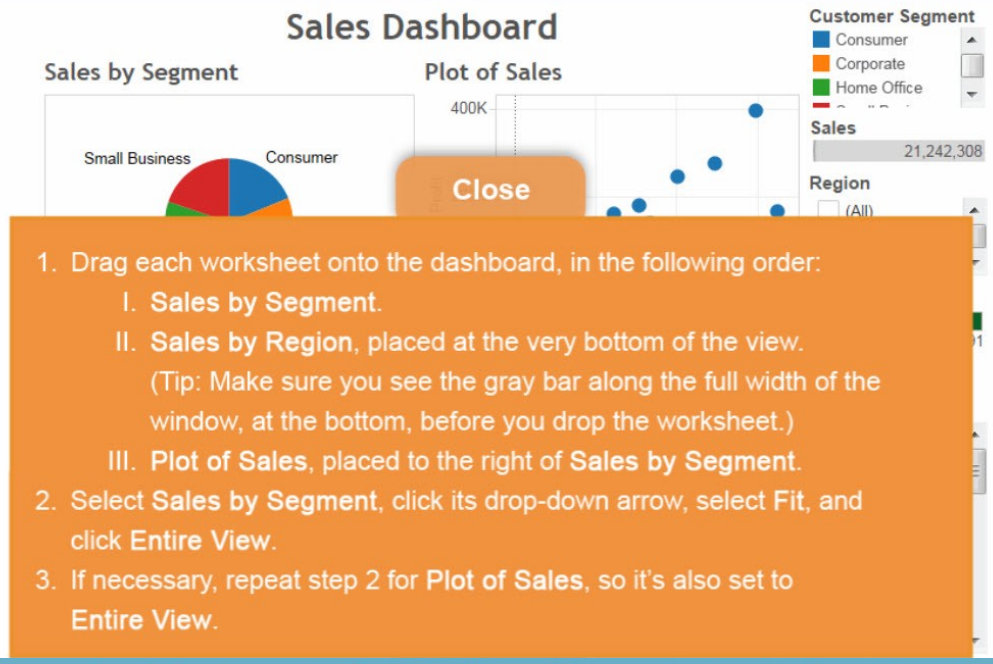
1. Create a new Laptop Browser-sized dashboard titled “Sales Dashboard” that shows the title.
2. Bring in all three views. Adjust Sales by Segment and Plot of Sales to fit the Entire View.
3. Remove the Sales legend, adjust the title position, and make the legends and filter visible.
4. Set up the Region quick filter and the Sales by Segment view to filter the entire dashboard.
5. Preview your final view and test your filters.

For help, click a step. Click the check mark when you’ve finished a step.

1. Create a new Laptop Browser-sized dashboard titled “Sales Dashboard” that shows the title.



2 Bring in all three views. Adjust Sales by Segment and Plot of Sales to fit the Entire View.

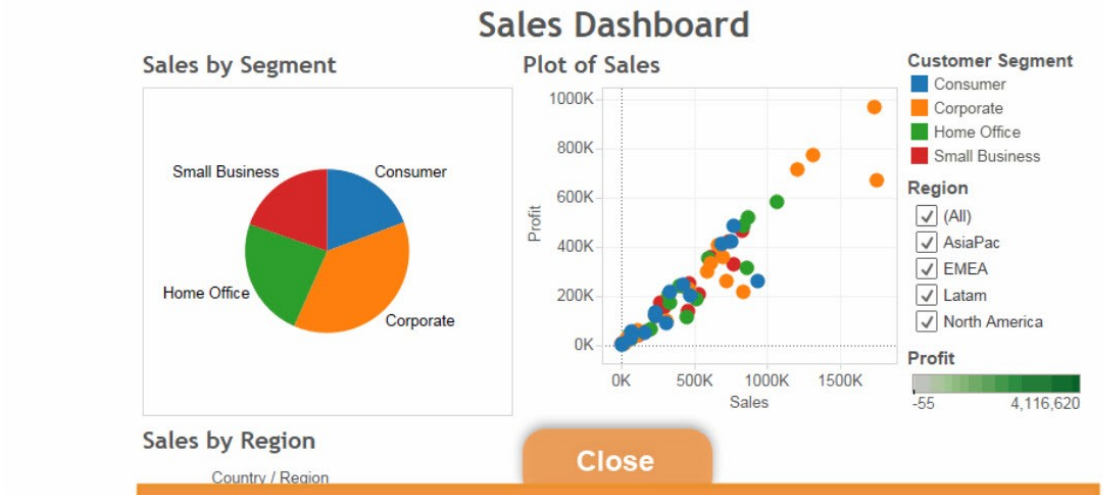


1. Drag each worksheet onto the dashboard, in the following order:
   I. **Sales by Segment**.
   II. **Sales by Region**, placed at the very bottom of the view. (Tip: Make sure you see the gray bar along the full width of the window, at the bottom, before you drop the worksheet.)
   III. **Plot of Sales**, placed to the right of **Sales by Segment**.
2. Select **Sales by Segment**, click its drop-down arrow, select **Fit**, and click **Entire View**.
3. If necessary, repeat step 2 for **Plot of Sales**, so it's also set to **Entire View**.

3 Remove the Sales legend, adjust the title position, and make the legends and filter visible.

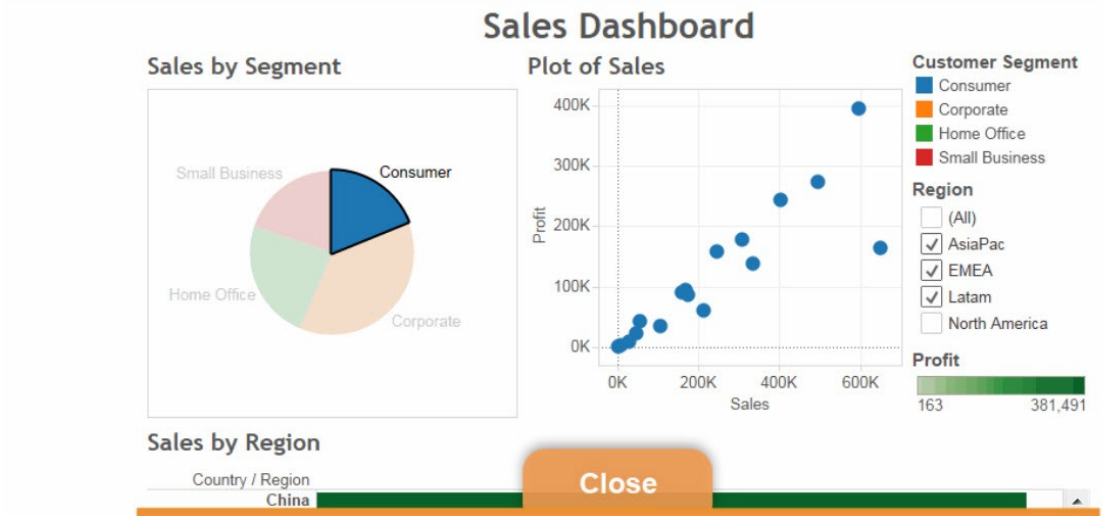
1. Select the gray **Sales** legend, and click the **X** to remove it.
2. Click the dashboard title, point to the top of its selection box, and look for the four-pointed move arrow. Drag the title slightly up and toward the center, look for the gray bar indicating full width, and drop the title.
3. To make the legends and filter fit fully (without scrollbars) in the top right of the dashboard, point to the top of **Sales by Region**, and drag the two-pointed arrow down slightly to reduce its height.

4 Set up the Region quick filter and the Sales by Segment view to filter the entire dashboard.



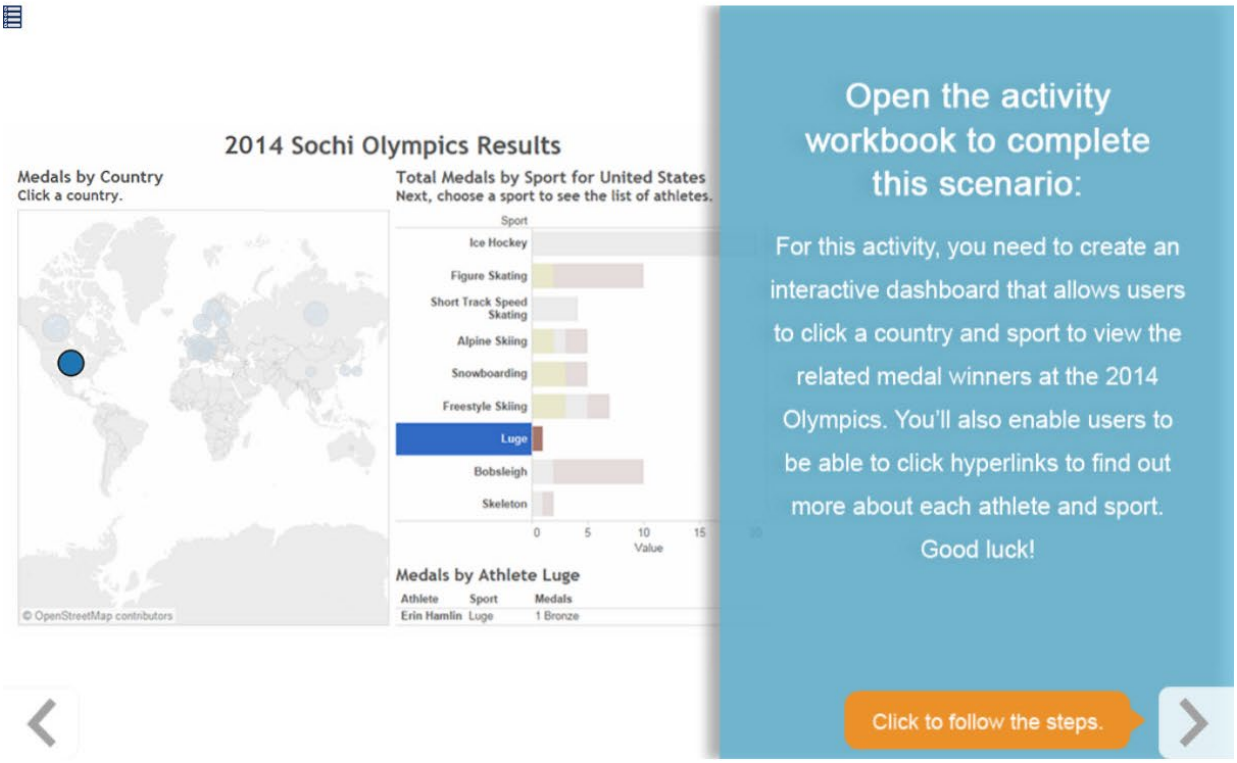
1. On the **Region** filter, click the drop-down arrow, select **Apply to Worksheets**, and click **All Using This Data Source**.
2. On the **Sales by Segment** view, click the **Use As Filter** button.

5 Preview your final view and test your filters.

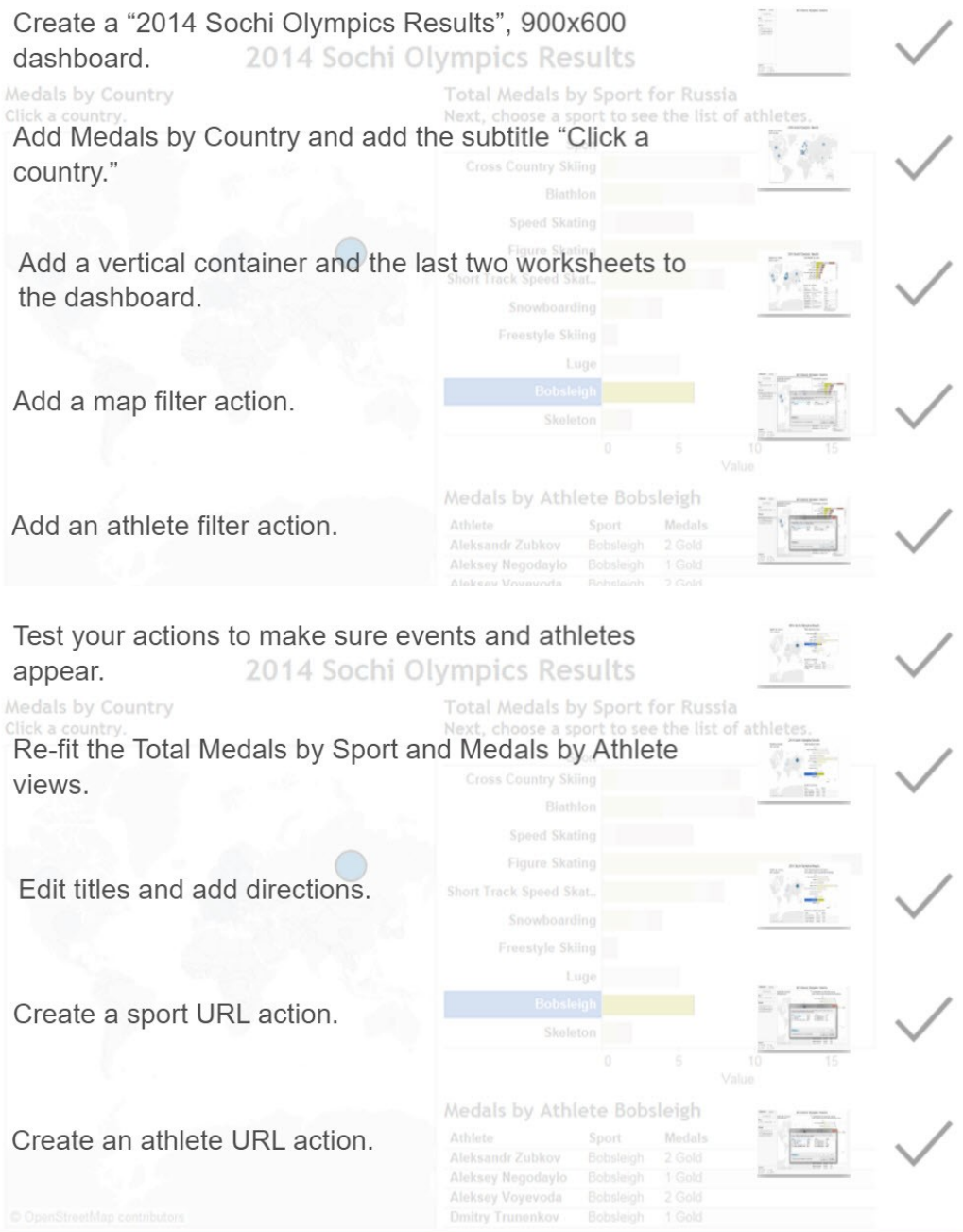


1. On the toolbar, click the **Presentation Mode** button, and test the filters in the dashboard.


Add Actions to a Dashboard
Create filter and URL actions.
Start


2014 Sochi Olympics Results
Medals by Country
Click a country.
Total Medals by Sport for United States
Next, choose a sport to see the list of athletes.
Sport
Ice Hockey
Figure Skating
Short Track Speed Skating
Alpine Skiing
Snowboarding
Freestyle Skiing
Luge
Bobsleigh
Skeleton
0
5
10
15
Value
Medals by Athlete Luge
Athlete
Sport
Medals
Erin Hamlin
Luge
1 Bronze
© OpenStreetMap contributors
Open the activity workbook to complete this scenario:
For this activity, you need to create an interactive dashboard that allows users to click a country and sport to view the related medal winners at the 2014 Olympics. You'll also enable users to be able to click hyperlinks to find out more about each athlete and sport. Good luck!
Click to follow the steps.

1. Create a “2014 Sochi Olympics Results”, 900x600 dashboard.
2. Add Medals by Country and add the subtitle “Click a country.”
3. Add a vertical container and the last two worksheets to the dashboard.
4. Add a map filter action.
5. Add an athlete filter action.
6. Test your actions to make sure events and athletes appear.
7. Re-fit the Total Medals by Sport and Medals by Athlete views.
8. Edit titles and add directions.
9. Create a sport URL action.
10. Create an athlete URL action.



For help, click a step. Click the check mark when you’ve finished a step.

1 Create a “2014 Sochi Olympics Results”, 900x600 dashboard.

Close

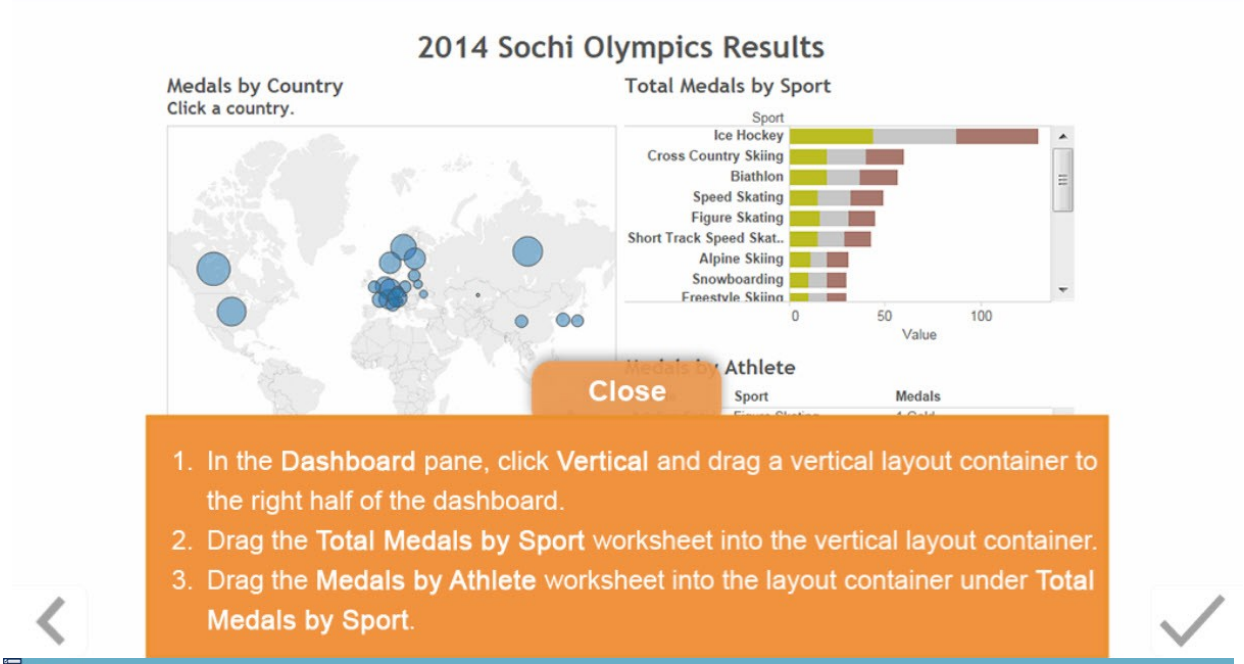
1. Click the **New Dashboard** tab.
2. Double-click the new dashboard tab and name it: “2014 Sochi Olympics Results”
3. On the **Size** drop-down menu, change the dashboard **Width** to **900 px**, and **Height** to **600 px**.
4. Check the **Show dashboard title** box.

2 Add Medals by Country and add the subtitle “Click a country.”

Close

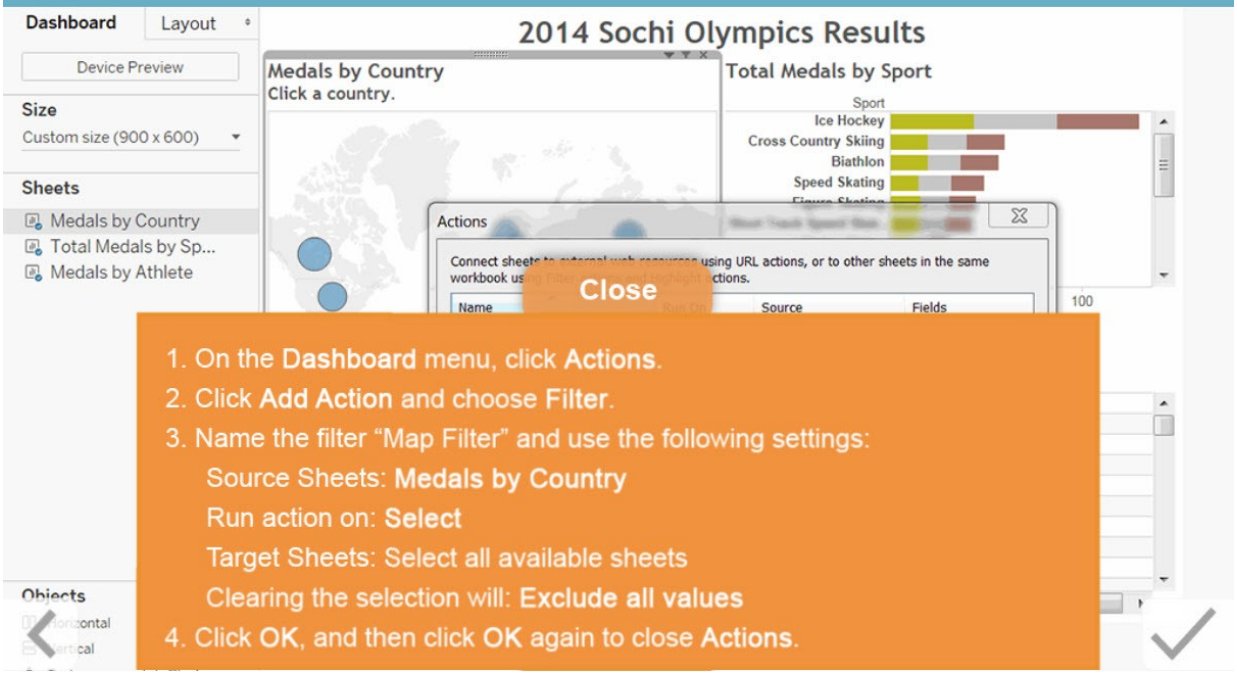
1. Drag the **Medals by Country** worksheet onto the dashboard.
2. Right-click the worksheet title, and then click **Edit Title**.
3. Add a line below the title and type: "Click a country."
4. Change the font size of the new line to **10**.
5. Click **OK**.

3 Add a vertical container and the last two worksheets to the dashboard.



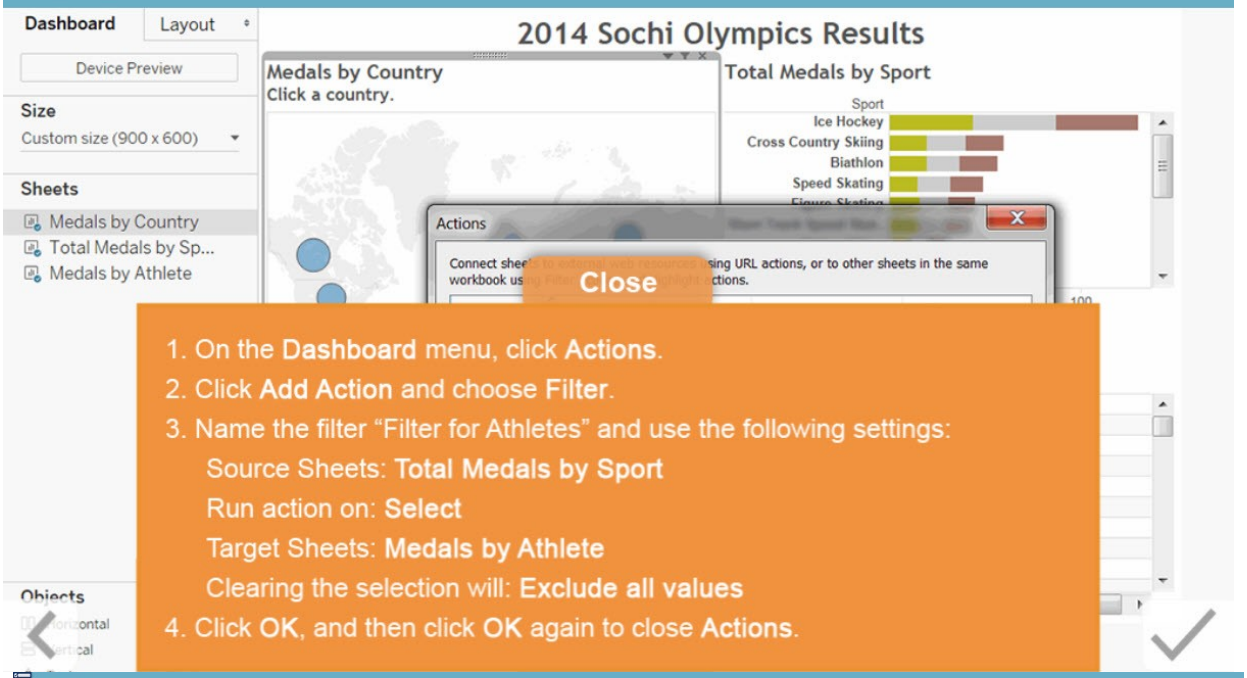
1. In the **Dashboard** pane, click **Vertical** and drag a vertical layout container to the right half of the dashboard.
2. Drag the **Total Medals by Sport** worksheet into the vertical layout container.
3. Drag the **Medals by Athlete** worksheet into the layout container under **Total Medals by Sport**.

4 Add a map filter action.



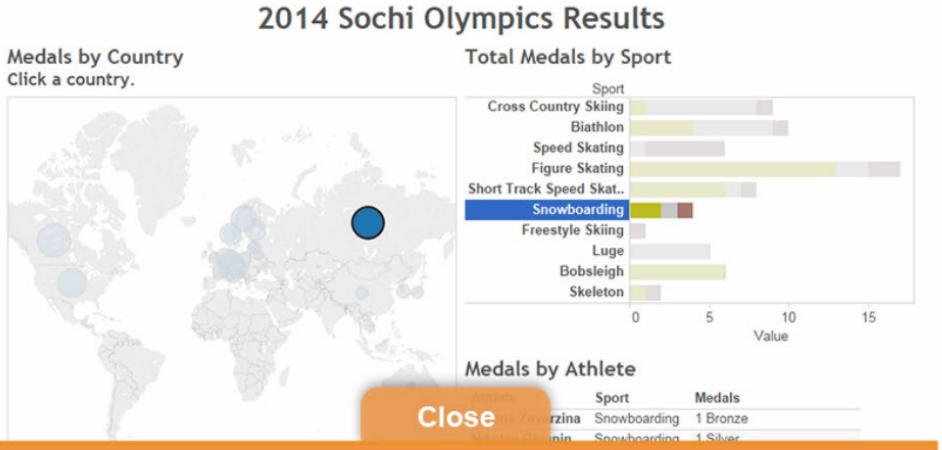
1. On the **Dashboard** menu, click **Actions**.
2. Click **Add Action** and choose **Filter**.
3. Name the filter "Map Filter" and use the following settings:
   - Source Sheets: **Medals by Country**
   - Run action on: **Select**
   - Target Sheets: Select all available sheets
   - Clearing the selection will: **Exclude all values**
4. Click **OK**, and then click **OK** again to close **Actions**.

5 Add an athlete filter action.



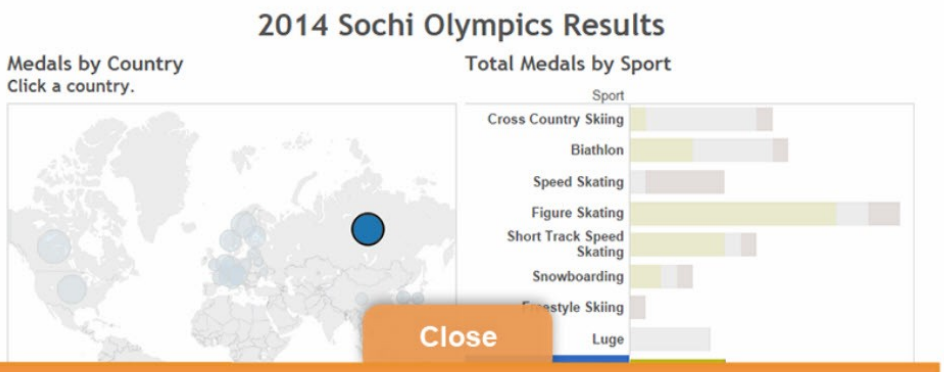
1. On the **Dashboard** menu, click **Actions**.
2. Click **Add Action** and choose **Filter**.
3. Name the filter "Filter for Athletes" and use the following settings:
   - Source Sheets: **Total Medals by Sport**
   - Run action on: **Select**
   - Target Sheets: **Medals by Athlete**
   - Clearing the selection will: **Exclude all values**
4. Click **OK**, and then click **OK** again to close **Actions**.

6 Test your actions to make sure events and athletes appear.



1. Click Russia's mark on the map.
2. Click **Speed Skating** in the bar chart.
3. Click a blank area in the bar chart to clear the player list.
4. Click **Snowboarding** in the bar chart.

7 Re-fit the Total Medals by Sport and Medals by Athlete views.



1. In the dashboard, click to select the **Total Medals by Sport** view.
2. In the top right corner, click the drop-down arrow, select **Fit**, and then choose **Entire View**.
3. Use the same method to set **Medals by Athlete** to **Fit Width**.
4. Select Russia's mark on the map and **Bobsleigh** in the bar chart to test the change.

8 Edit titles and add directions.

1. Right-click the **Total Medals by Sport** title, and then click **Edit Title**.
2. Edit the title to look like this: **<Sheet Name> for <Country>**
3. Add a line below the title and type: "Next, choose a sport to see the list of athletes."
4. Change the font size of the new line to **10**, and then click **OK**.
5. Edit the title of **Medals by Athlete** to read: **<Sheet Name> <Sport>**, and then click **OK**.
6. Click Russia's mark on the map and **Bobsleigh** in the bar chart.

9 Create a sport URL action.

1. On the **Dashboard** menu, click **Actions**.
2. Click **Add Action**, and choose **URL**.
3. Name the URL action "Look up information about <Sport>" and use these settings:
   - Source Sheets: **Medals by Athlete** and **Total Medals by Sport**
   - Run Action On: **Menu**
   - URL: http://en.wikipedia.org/wiki/<Sport>
4. Click **OK**, and then click **OK** again to close **Actions**.

10 Create an athlete URL action.

1. On the **Dashboard** menu, click **Actions**.
2. Click **Add Action**, and choose **URL**.
3. Name the URL action "Look up information about <Athlete>" and use these settings:
   - Source Sheets: **Medals by Athlete**
   - Run Action On: **Menu**
   - URL: http://www.google.com/search?q="<Athlete>" +Olympics
   - URL Options: **URL Encode Data Values**
4. Click **OK**, and then click **OK** again to close **Actions**.