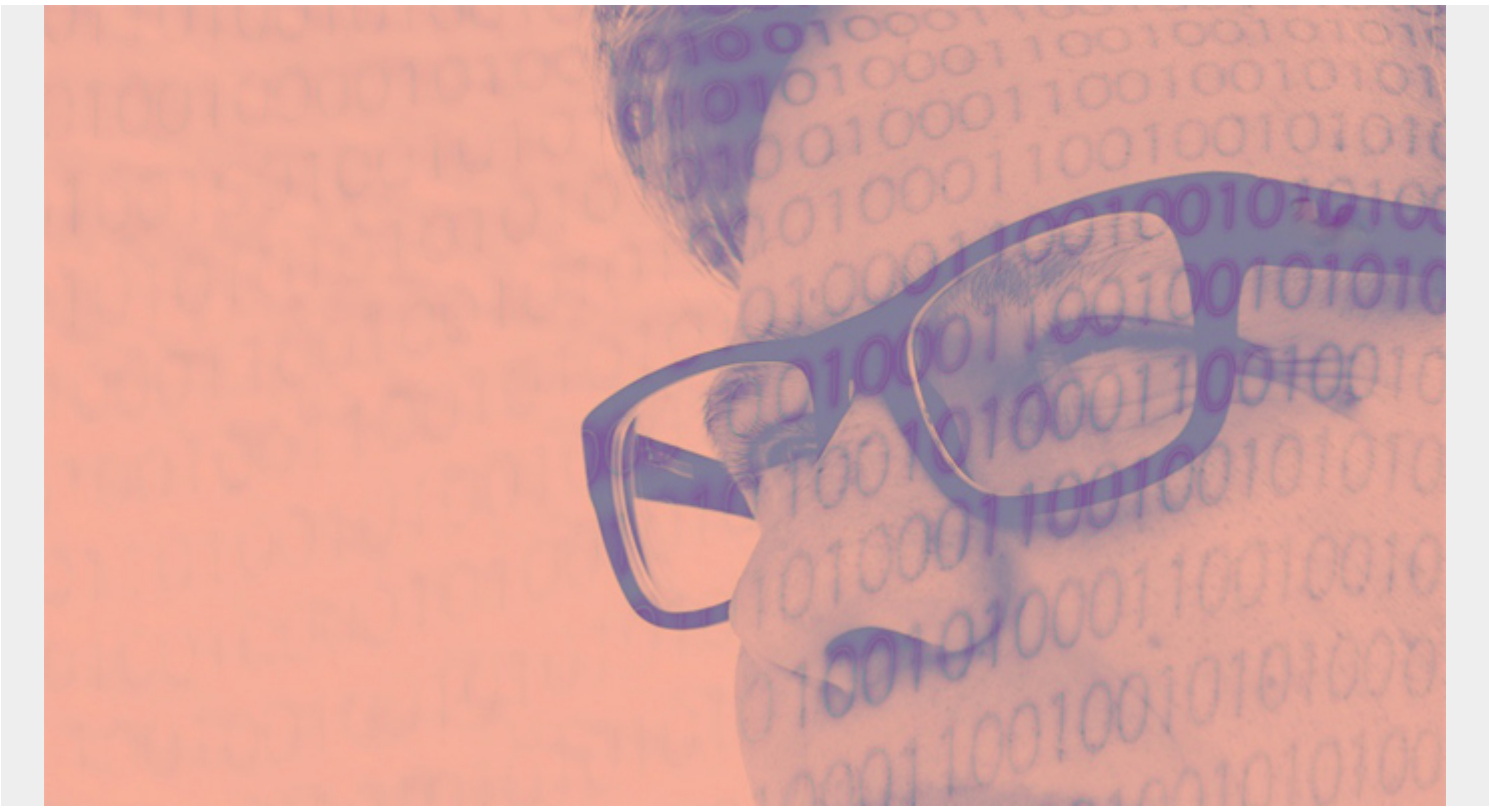
TABLEAU ONLINE: PLOTTING MULTIPLE AXES ON THE VERTICAL AXIS, PT. 2



Here we show how to plot more than one **metric** on a single vertical axis in Tableau Online. Metrics are called **Pills** in Tableau, since they are shaped like a pill.

(This article is part of our Tableau Online Guide. Use the right-hand menu to navigate.)

The problem

For the beginner, Tableau Online is frustrating because, when you put two metrics on the rows (horizontal), it draws two charts as the default behavior. Users of Microsoft Excel are used to Excel doing the desired behavior, plotting multiple axes, automatically.

In Part 1 of this tutorial, we did that using a **union**. Here we do that by taking two data points from a single view. We'll create charts with:

- Two data points on the left vertical axis
- Two data points with one on the left axis and one on the right

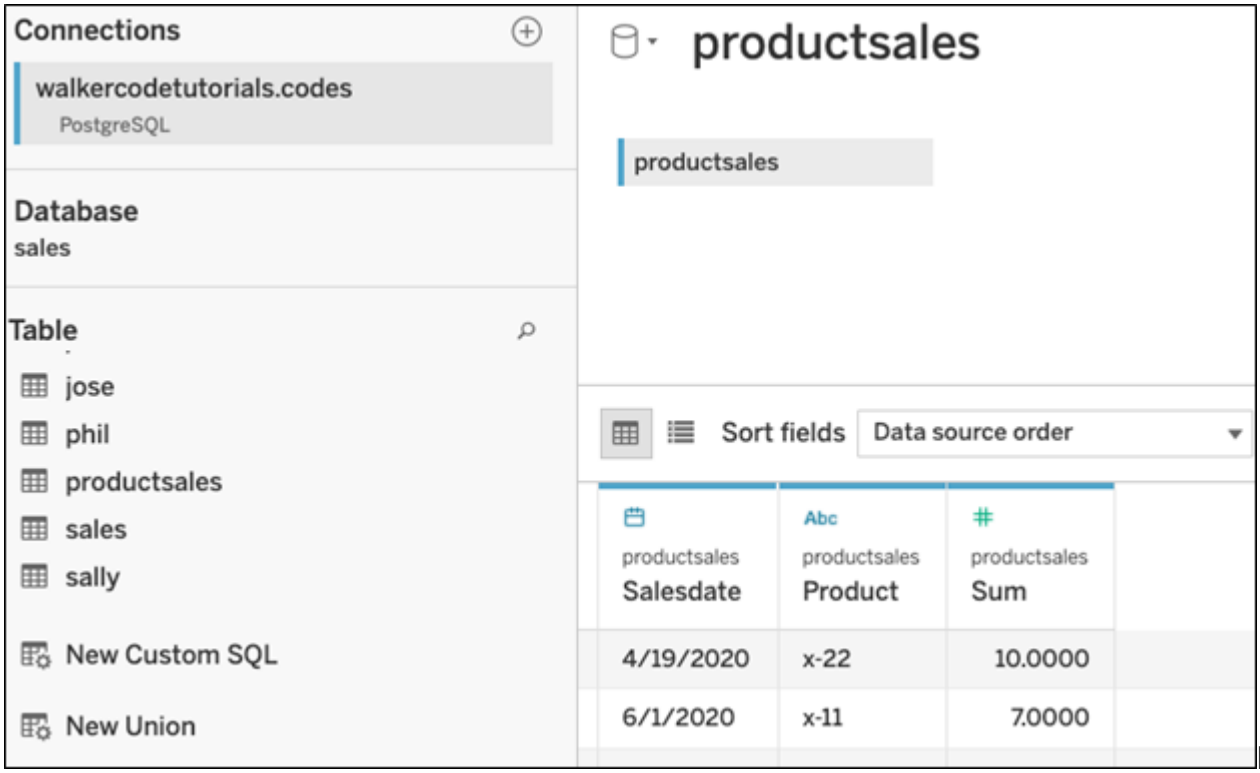
Generate your data

You can run this Python code to create some data and then run this SQL command to add a **revenue** column. Or just pick any data that you have and follow these general instructions.

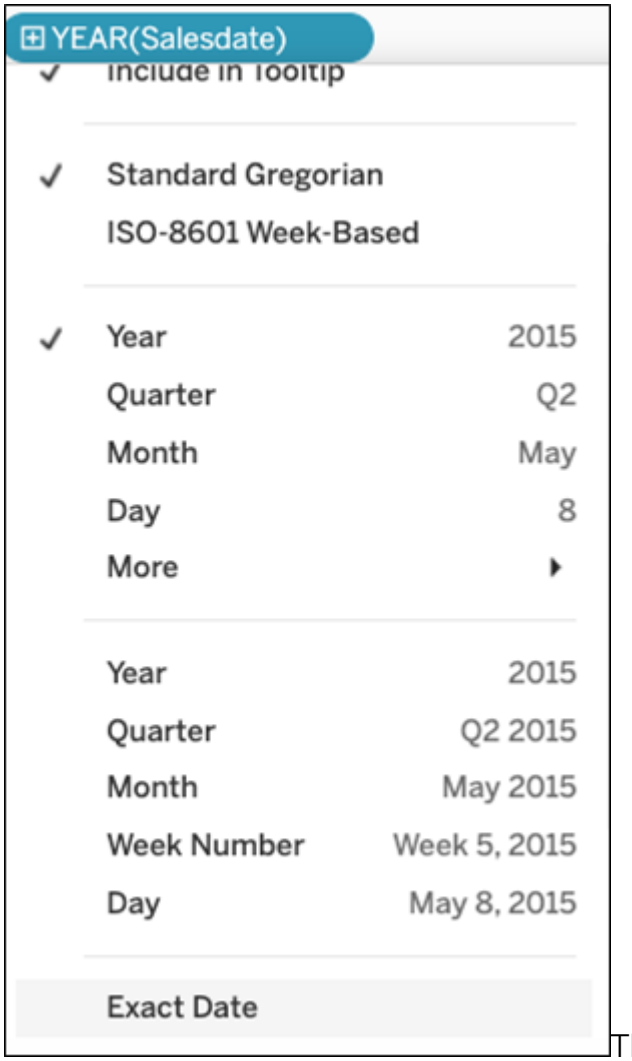
```
create view revenue as select salesdate, product, quantity, quantity *
random() * 10 as revenue from sales;
```

Plot two data points on left vertical axis

Create a new data source.



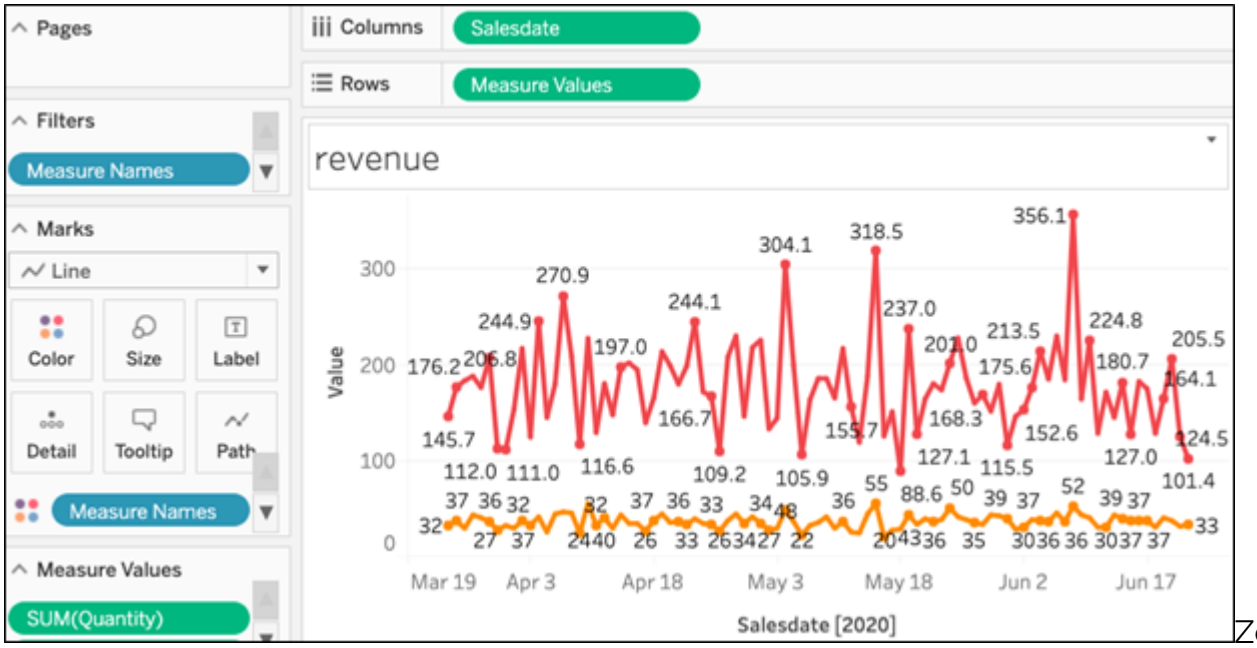
Drag the **Salesdate** to **Columns** and then change the date from **YEAR()** to **exact date**.



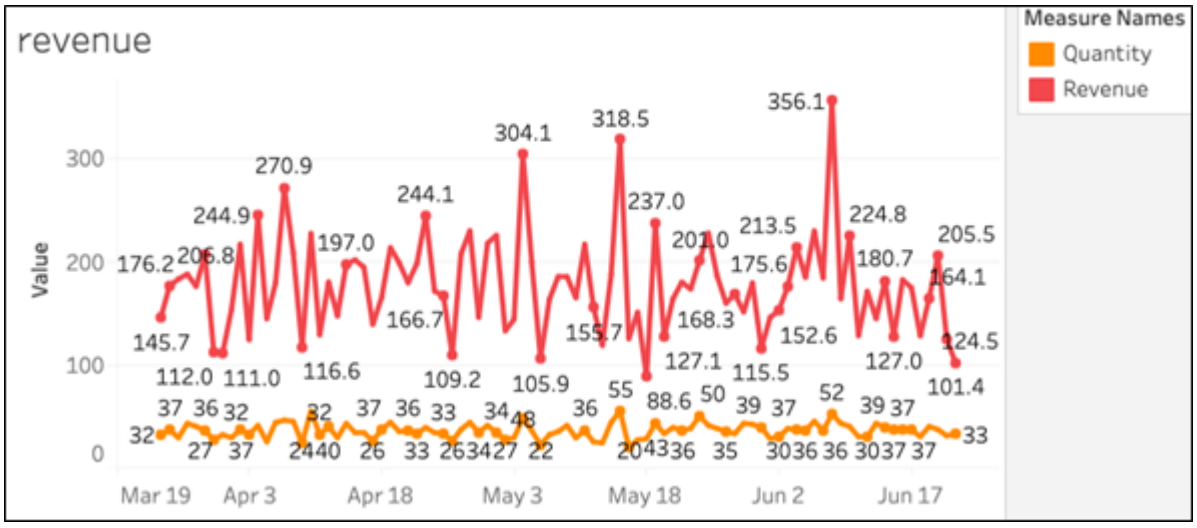
This next step is not exactly intuitive. Drag **Measure Names** onto the **Color Mark**. Drag the **Measure Values** to **Rows**. This creates a legend to the right for each metric and plot each metric on the chart. (That is the frustrating part for beginners as if you drag each metrics onto Rows it makes a separate chart for each metrics.)

You'll also want to remove **SUM(Number of Records)** as that's not too useful, but Tableau Online adds it to the chart automatically. So, scroll down and find it and remove it from here:

The chart now looks like this:



Zoom in for a closer view:

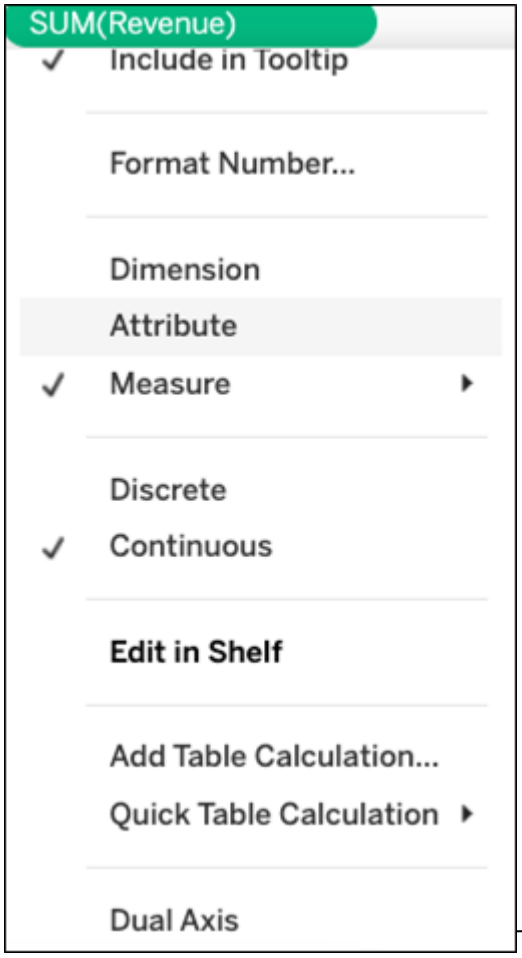


Plot two data points on dual axis

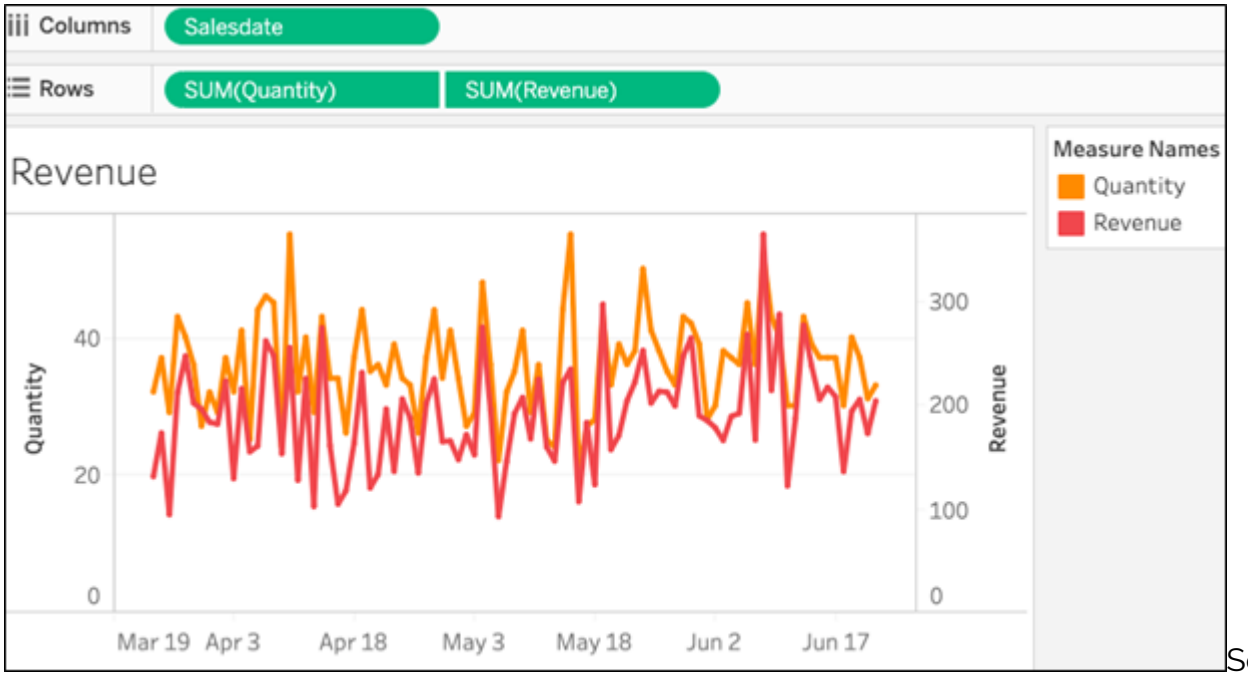
The chart above looks OK. You could change the label **Value** to **Revenue/Quantity.** But let's use another technique and plot one metric on the left axis and the other on the right axis.

So, instead of using **Measure Values** drag **Revenue** and **Quantity** onto **Rows**.

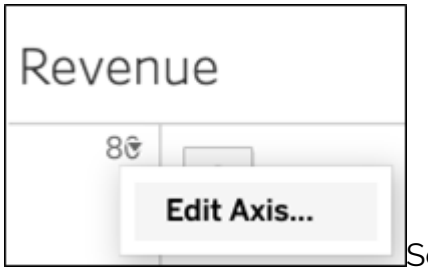
Tableau makes two charts. So click **Sum(Revenue)** and then select **Dual Axis** to make one instead.



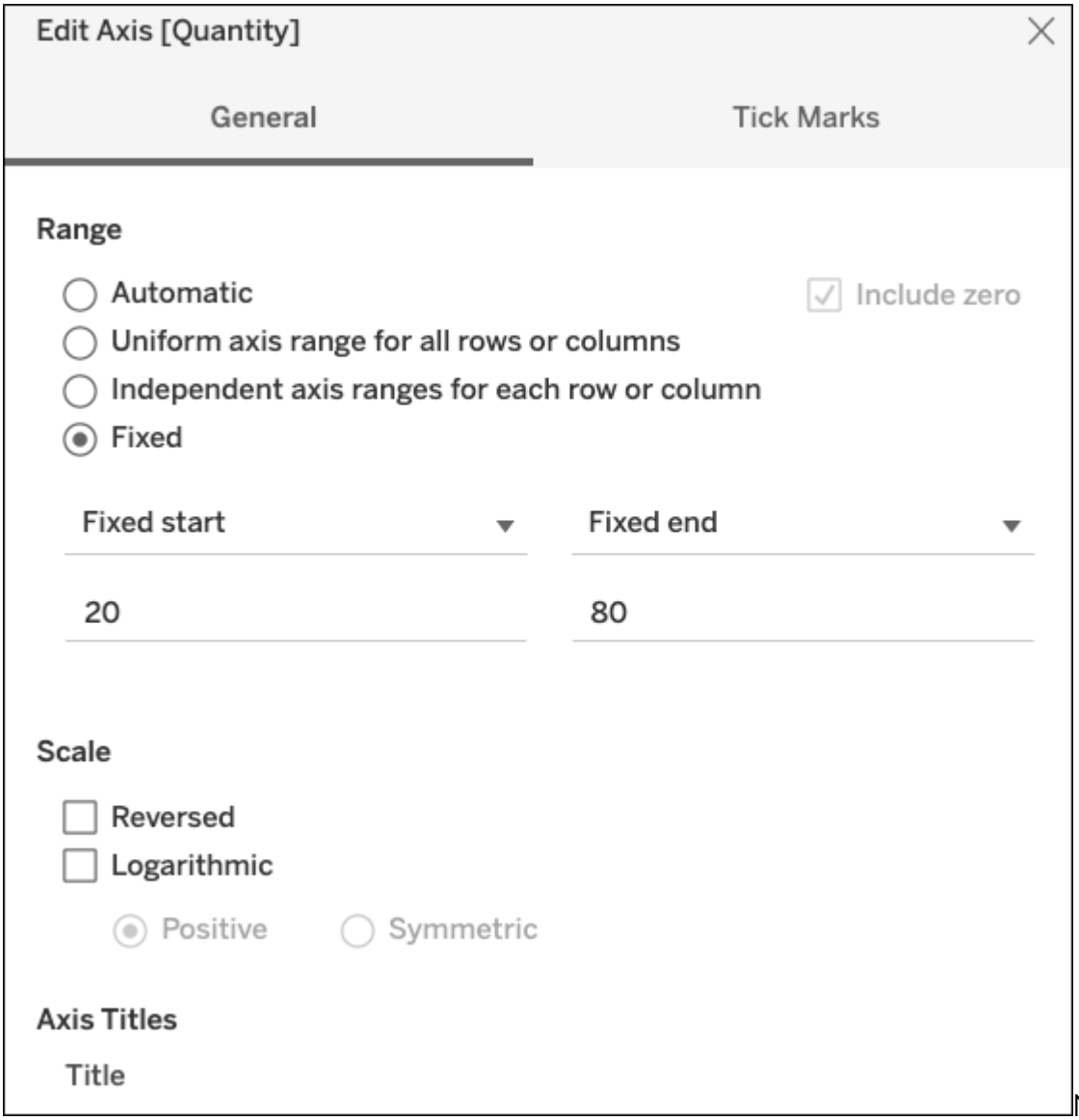
The resulting chart is a bit crowded:



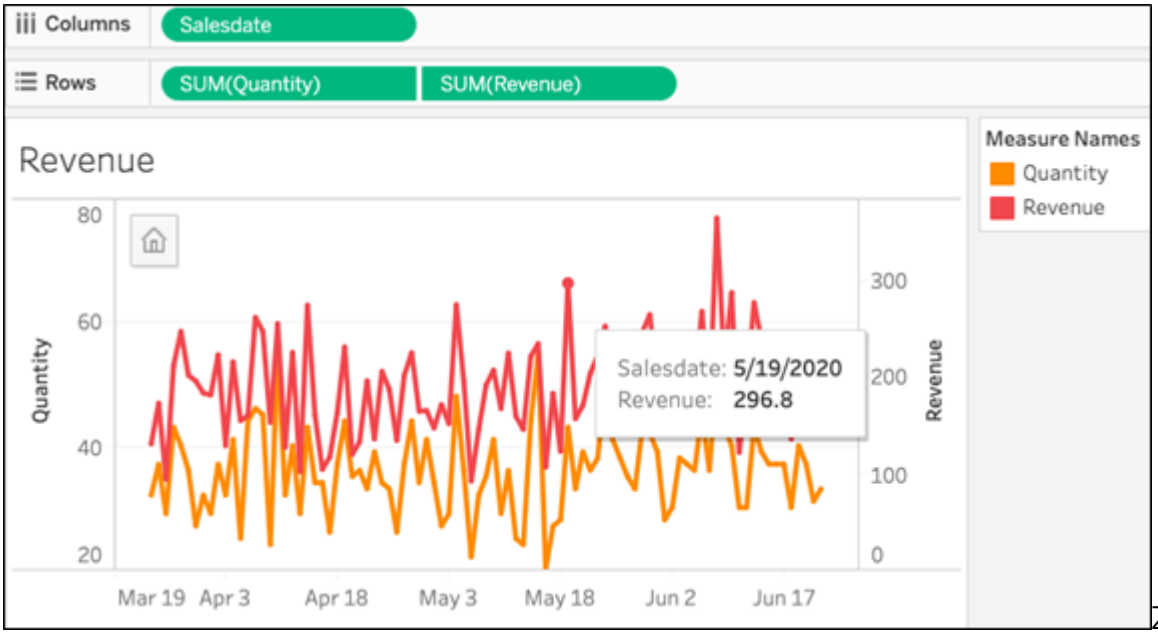
So, edit the **quantity** axis to force values to a range that does not overlap with the **revenue** range.



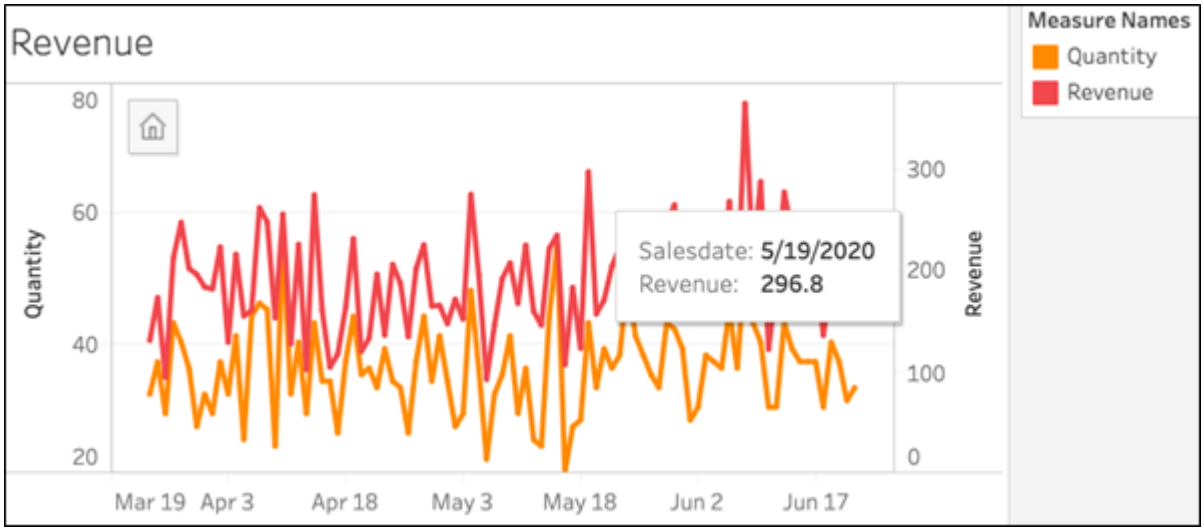
Set a **fixed** range.



Now it's easier to read:



Zoom in for a closer view.


Revenue
Measure Names
Quantity
Revenue
80
60
40
20
Quantity
300
200
100
0
Revenue
Salesdate: 5/19/2020
Revenue: 296.8
Mar 19
Apr 3
Apr 18
May 3
May 18
Jun 2
Jun 17