### New Orleans Subsidence

1. Open the Excel spreadsheet and complete the data table using appropriate formulas.
	* Green cells are numerical entries
	* Blue cells are new equations
	* Yellow cells are copied equations
2. Create a graph of elevation change over time.
	1. Highlight your Elev(ft) column (numbers only)
	2. Click INSERT on the ribbon and under “Charts” choose the Scatter plot with the smooth marked line.
	
	3. Right-click in the area of the chart and choose “select data”.
	Click on Series1 and choose “Edit”
	The Series Y values should already be =Sheet1!$K$5:$K$26
	Select the Series X values by clicking the button  and selecting the cells containing years (1720:2050).
	Click the button  and then OK. The graph should now show years across the bottom.
3. The maximum subsidence that has occurred in New Orleans is believed to be 10-12 feet. See the map in Canvas to see which areas (purples and blues) are most impacted. Is your data supported by these findings?
4. The map is a direct measurement, and your chart is an anticipated outcome based on generally agreed-upon values. What could account for any differences (error) between the map and your data table?

1. The total subsidence in your spreadsheet depends on the average rates in the right side of your spreadsheet. These can be changed at any time- and as new research comes forward, there’s a good chance they might.

Suppose new studies suggest that the tectonic subsidence might be closer to 0.40 mm/year over the last 200 years, even though the long-term trend is higher than that.

	* Change the subsidence rate for tectonic movement to reflect this new estimate.
	Is this new rate supported by the observed subsidence of 10-12 feet?
	* As a scientist, what would you suggest that researchers do from here? Why?