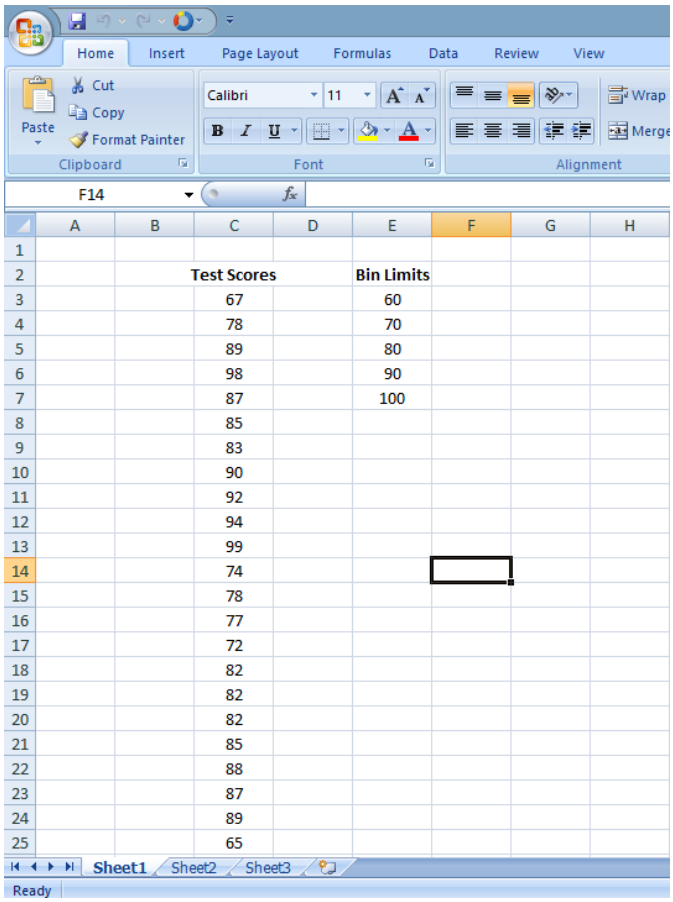
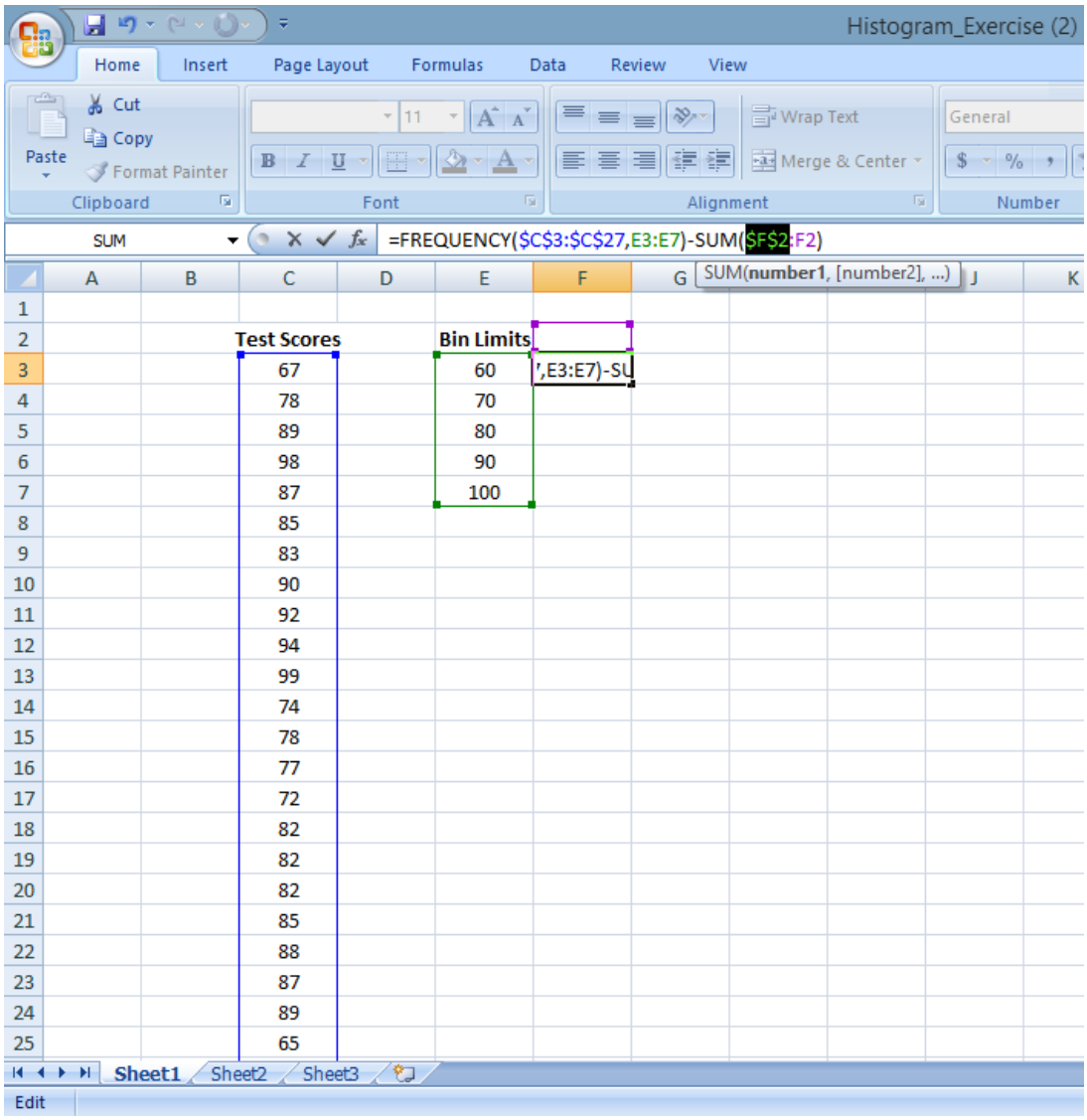
MindEdge LEARNING

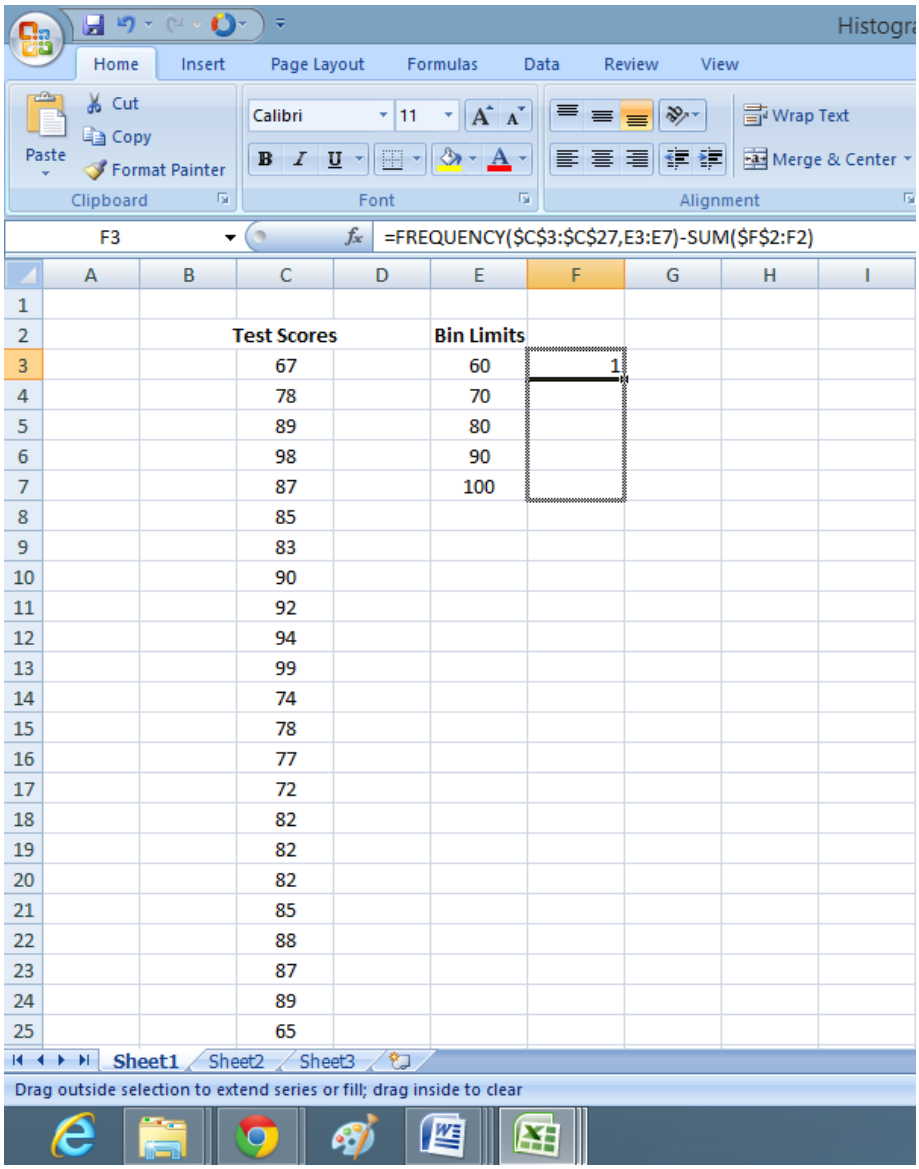
Spreadsheets: Histograms

In this video, we'll use the functions in Excel and Zoho to create a histogram out of a dataset. In this case, the data set are test scores, listed in this column here. Over here we've listed "Bin limits." Bin limits represent intervals that essentially plot how many values of your dataset fall within the parameters of the bin value. This is also known as frequency.

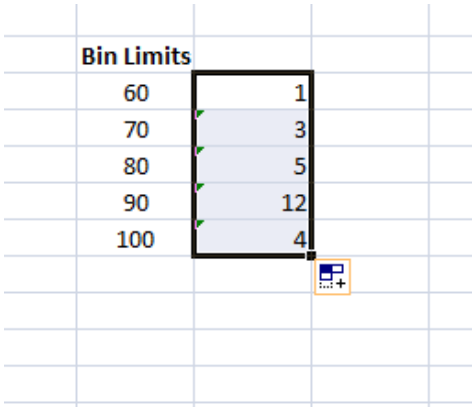


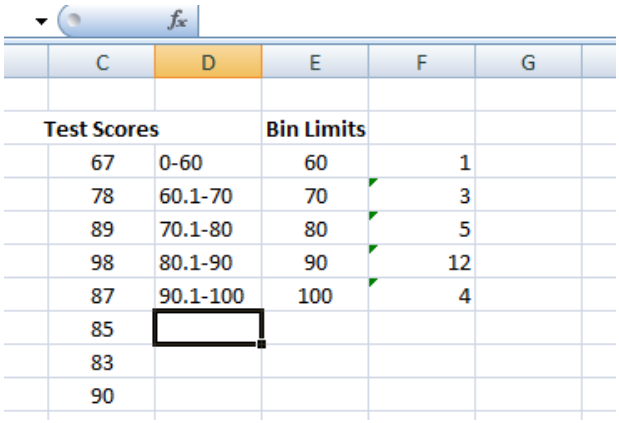


The next step is to determine the frequency of each interval in the histogram. To do this, we'll enter an equals sign, and then type frequency, and then make sure to have an open parenthesis. Next select the data and fix those cells with dollar signs. So, how we'll do that is we'll click down, drag and hold, and select the dataset. A shortcut to fix these data points with dollar signs is to click on the data point in the cell and click F4. Next we're going to add a comma and we're going to select our bin limits; and we'll do that they same way, click and drag and hold to the bottom. Now we'll close this part of the formula with a parenthesis. Finally, we'll need to subtract the sum of the cells above it, fixing the first number with a dollar sign. Type a "-SUM", open parenthesis, select the cell above it, again fix this with dollar signs, select the cell, click F4, and then colon and then we'll type in F 2 and click enter.



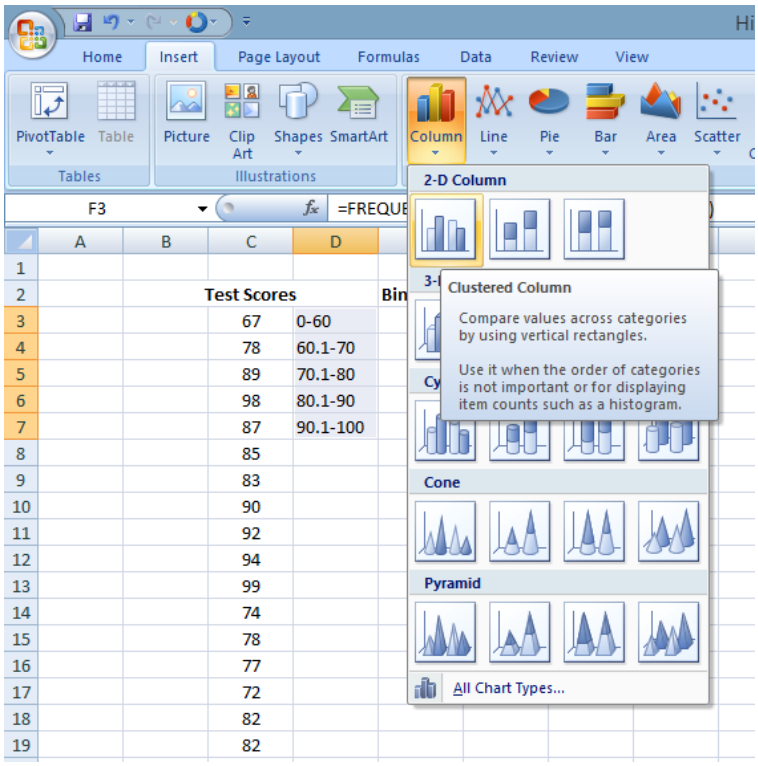
Now to extend this formula down, we'll click on the cell with the one, click and hold at the bottom of the cell, and drag to extend this formula down the other cells below it. And that will give you our answer.





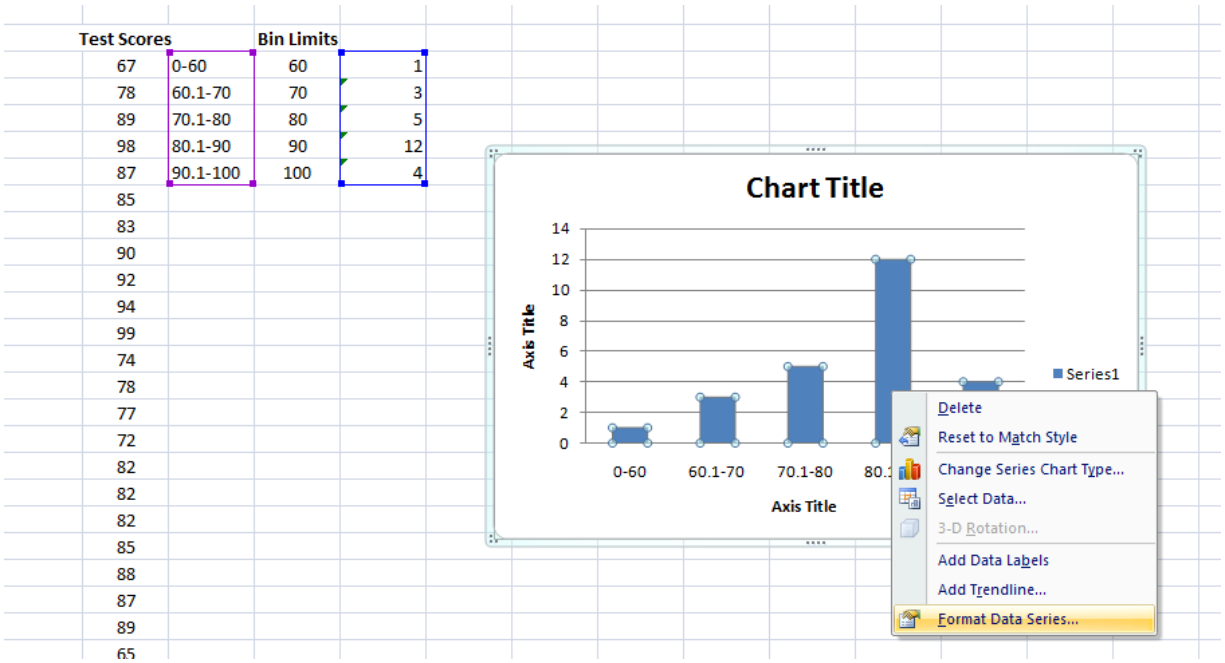
	C	D	E	F	G
	Test Scores		**Bin Limits**		
	67	0-60	60	1	
	78	60.1-70	70	3	
	89	70.1-80	80	5	
	98	80.1-90	90	12	
	87	90.1-100	100	4	
	85				
	83				
	90				

For the histogram to have a range for each, we need to mark in ranges for the x-axis. You can see that we've put those ranges for the x-axis here.

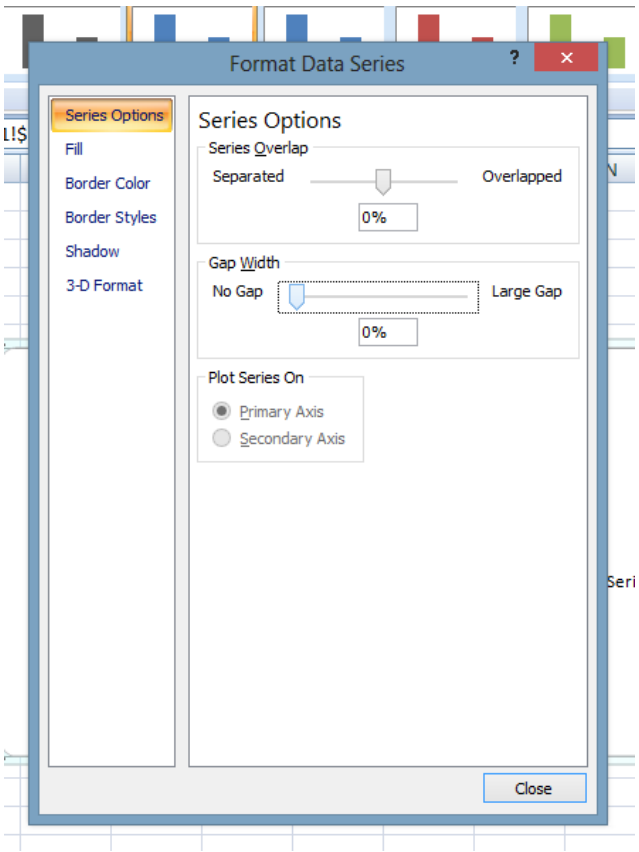


Next it is important to make sure we have our x-axis ranges and our bin limit quantities selected. So, again, to select our data set we're going to select and drag and hold. To select our second data set you're going to hold down control, click and drag and hold. Now that we've had those both selected, we're going to go the insert tab, select column and then we'll select a 2-D clustered column graph.

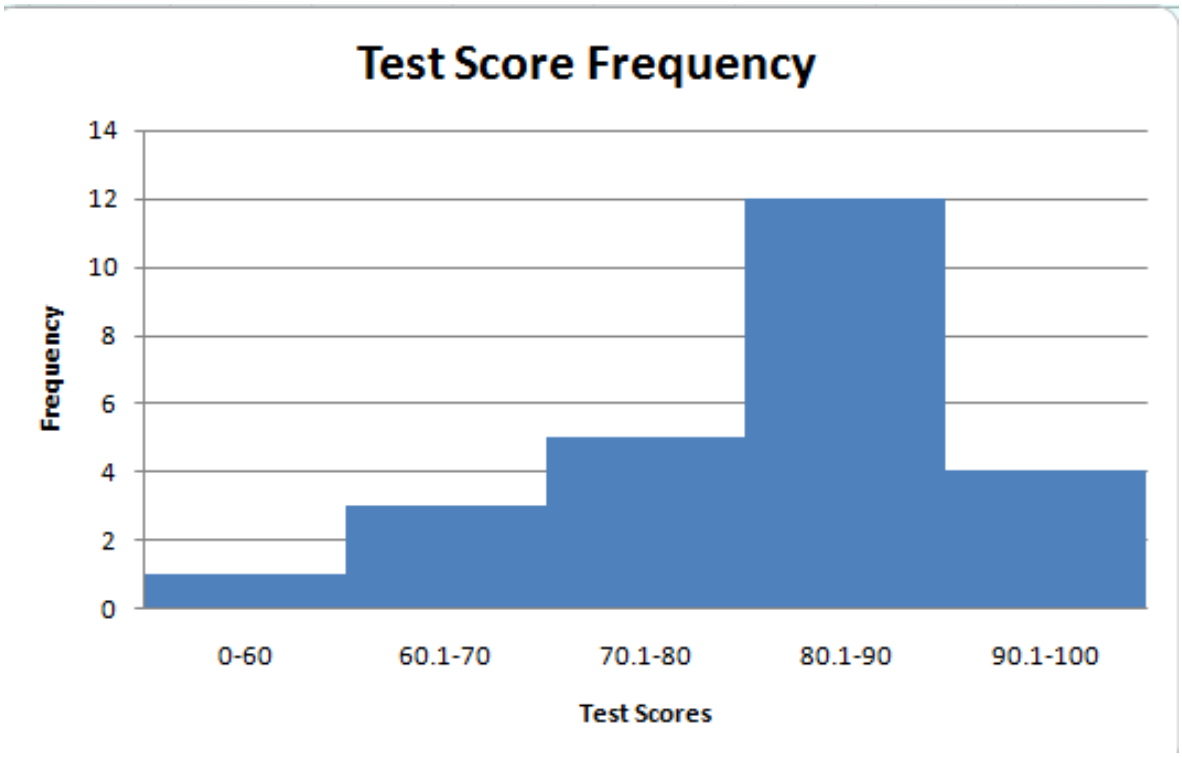
Next in the Chart Tools, we go to Design and select a Chart Layout.



From here, the last step is to right click on a column in the graph and select “Format Data Series”



Here we are going to adjust our “Gap Width” to 0 percent.



After this, as we should always do, we can fill in the chart and axis titles and maybe add column labels, also known as data labels. These changes can be found in the Layout tab of Chart Tools.