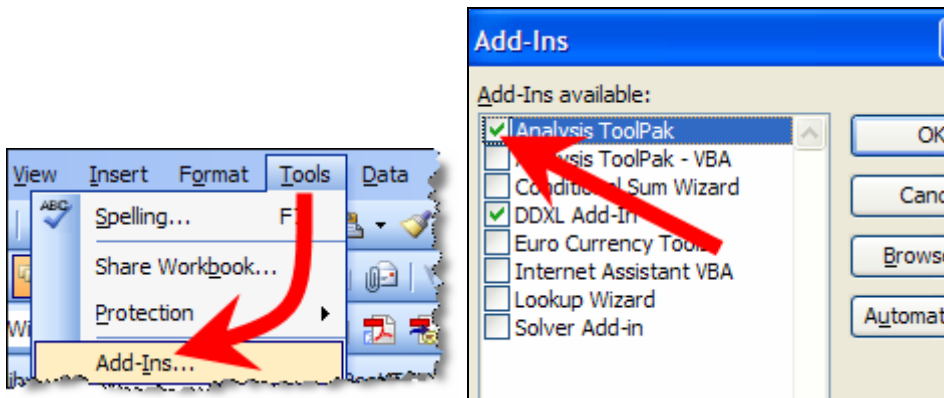


## How to create a Histogram in Excel

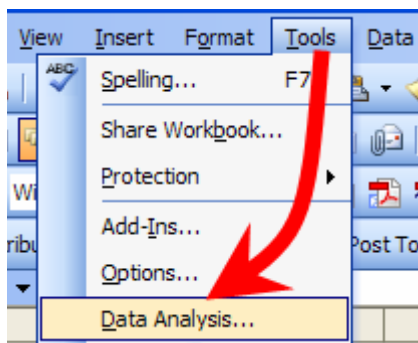
**Step 0.** You should have a sense for what would be a good class width. Our dataset ranged from 59 to 76. We will use a class width (bin width) of 3, starting at 59. I create two columns, one for the lower and one for the upper as shown below. Again, starting with the lowest class limit of 59, I added 3 to get its upper class limit of 62. The next lower class limit will be 63 and so on. Note that I can increment them this way because all of heights are rounded to the nearest inch. (That is there is no one who would fall in between a class, 66.5 for instance).

Lower Class Limit	Upper Class limit
59	62
63	66
67	70
71	74
75	78

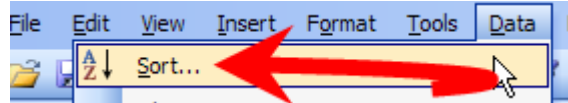
**Step 1.** Press Tools and Select Add-ins. We have to make sure that the Analysis Tools Pack is installed. Select it if it is not already.



**Step 2.** Go back to **Tools** and select **Data Analysis**.

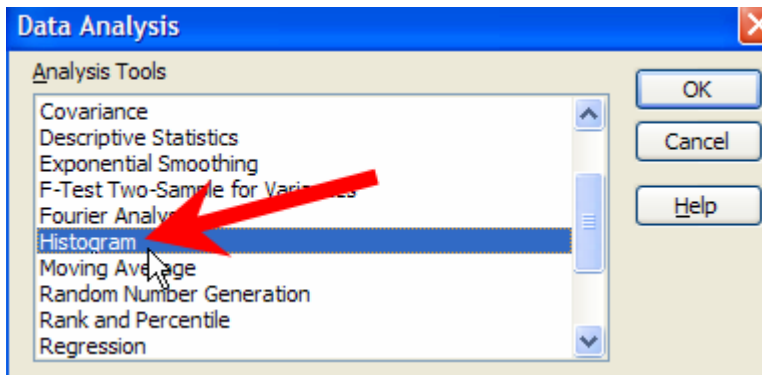


Note: Before do this, you should have sorted the data to determine the min and max values.

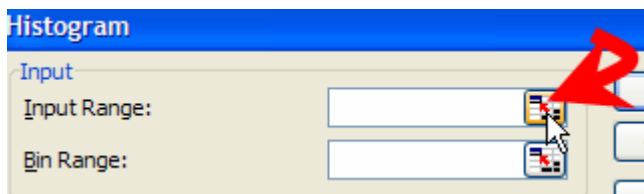


This will help you determine appropriate bin widths and number of classes.

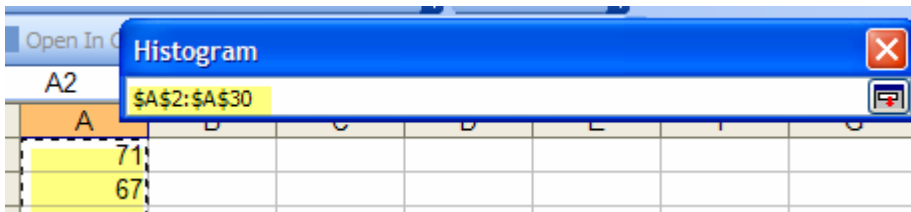
**Step 3.** To create a histogram, select **Histogram**.



**Step 4.** Select the input range.



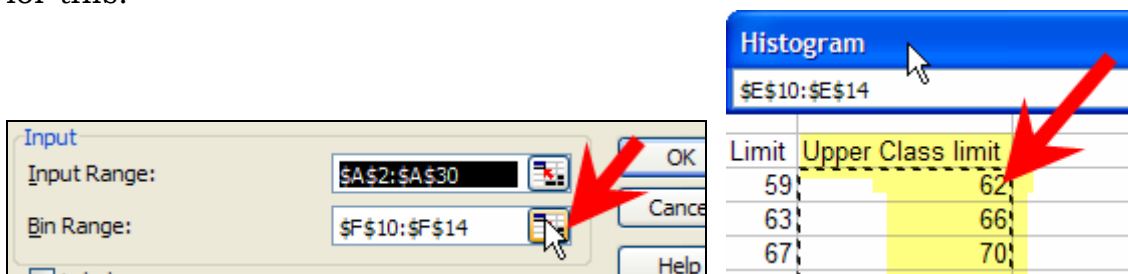
**Step 5.** It will now minimize the Histogram dialog box. Select the data.



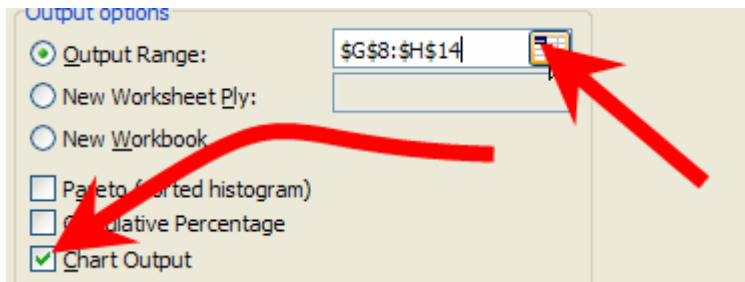
**Step 6.** Select the button shown to maximize the Histogram dialog box:



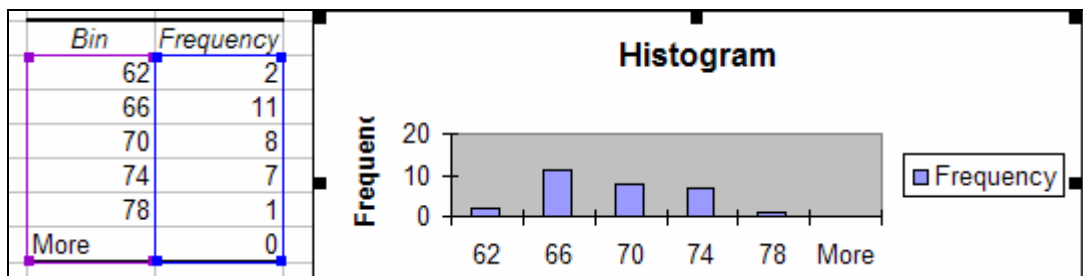
**Step 7.** You will now select the bin range. You will use the Upper class limit for this.



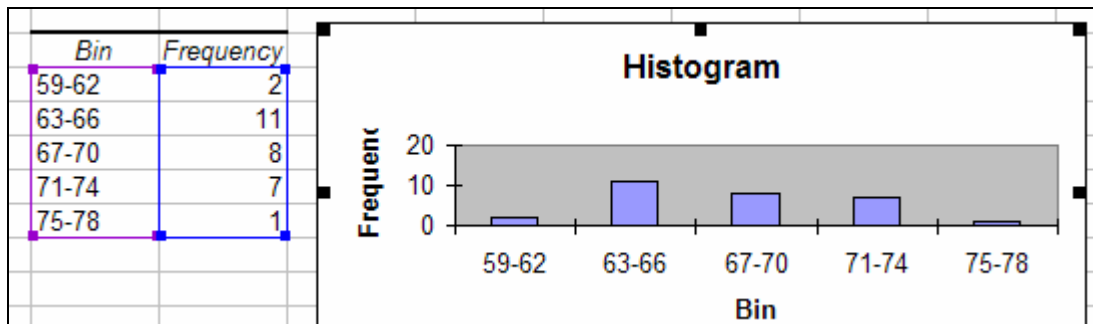
**Step 8.** Select an **output range** somewhere near where you have the class limits. I put it immediately to the right. Also, be sure that “**Chart Output**” is selected.



**Step 9.** Here is what mine looks like:



**Step 10.** Recall that we used the upper class limits. You can now type in the “Bin column and change those to a range: Lower-upper. Adding in the lower classes gives me:



**Step 11.** Histograms don’t usually have the gap in between them. To bring the bars together, double click on one of them, select the “Options” tab and change the gap width to 0. Yours should look close to the one below.

