Welcome to the EASE workshop series, part of the STEM Gateway program. Before we begin, I want to make sure we are clear that this is by no means meant to be an all inclusive class in Excel. At each step, there are many options that I won't have time to go over, so I encourage you to spend some time on your own playing with them.

If you haven't already, please download the dataset from the EASE website. The URL is also on your assessment sheets if I move away from this screen before your computers are booted up.

Also, the images are from the newest version of Excel, 2013, for PC's. Older versions, or those in Macs may look slightly different, but the overall concepts should still apply. This power point will also be available on the this site, so you can always refer back to it at a later time if necessary.
And, we've put a guide to Mac's on the website.

Lastly, in case you don't already know this, and don't have Excel on your computers, you can get it for free through IT's website under software.

There are 2 main ways to get data into Excel. The first is to manually enter it, the other is to copy it from another location. If you paste data into Excel and it is all within the first row, as you can tell because all the values in the formula bar are listed together, don't fret! There is an easy way to split it across the columns.

I'm going to walk you through how to do this, and remember, this presentation is on the EASE website for you to refer back to later so you can play with this feature on your own. First you highlight the data you want to distribute, then in the data tab, select "text to columns." Notice that the delimited option is selected, leave it like this and click next.

Now you have to select what the data is delaminated with. In this case, it's commas. This is telling Excel which character to remove from the data and replace with a column break. Another common option is Tab. Once you select the correct option, you can just click Finish. This should distribute the data into the right columns.
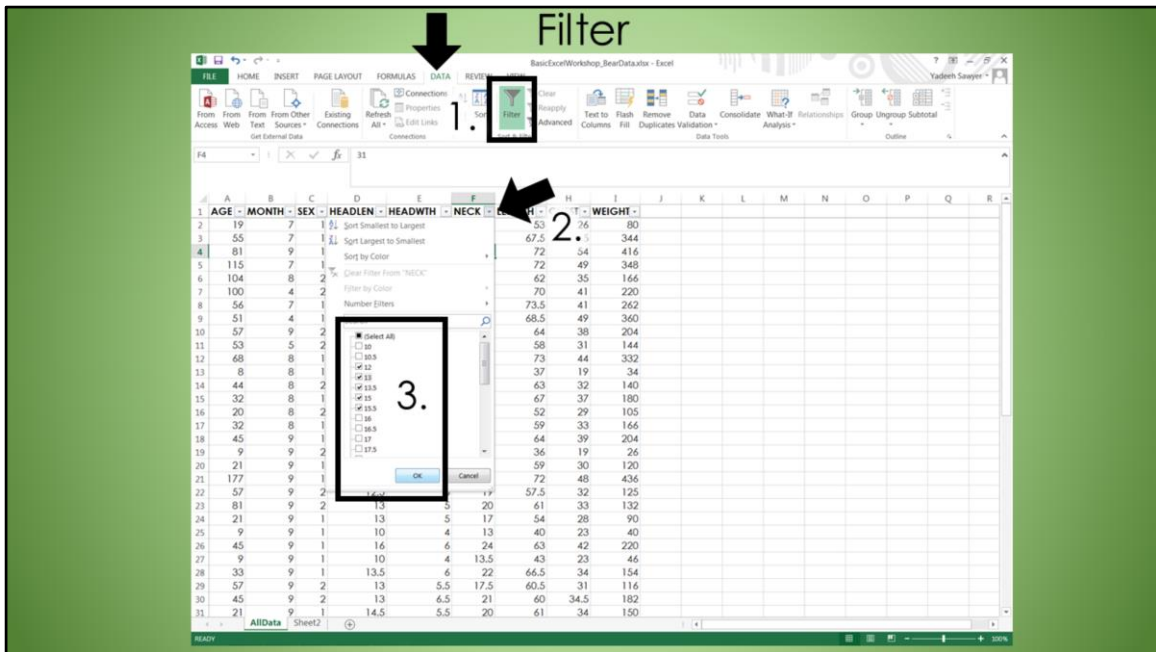
Now that you have your data in a useable format, you can answer simple questions about it using the "filter" feature. You should have watched the video on how to do this, so I'll go over it quickly.

To turn filters on, from the data tab, click Filter. This adds dropdown arrows for each header row. If you click that arrow, it gives you a list of values within that column. From there, you can filter the data as you'd like. In this example, it is for bears with neck size between 12 and 15.5.
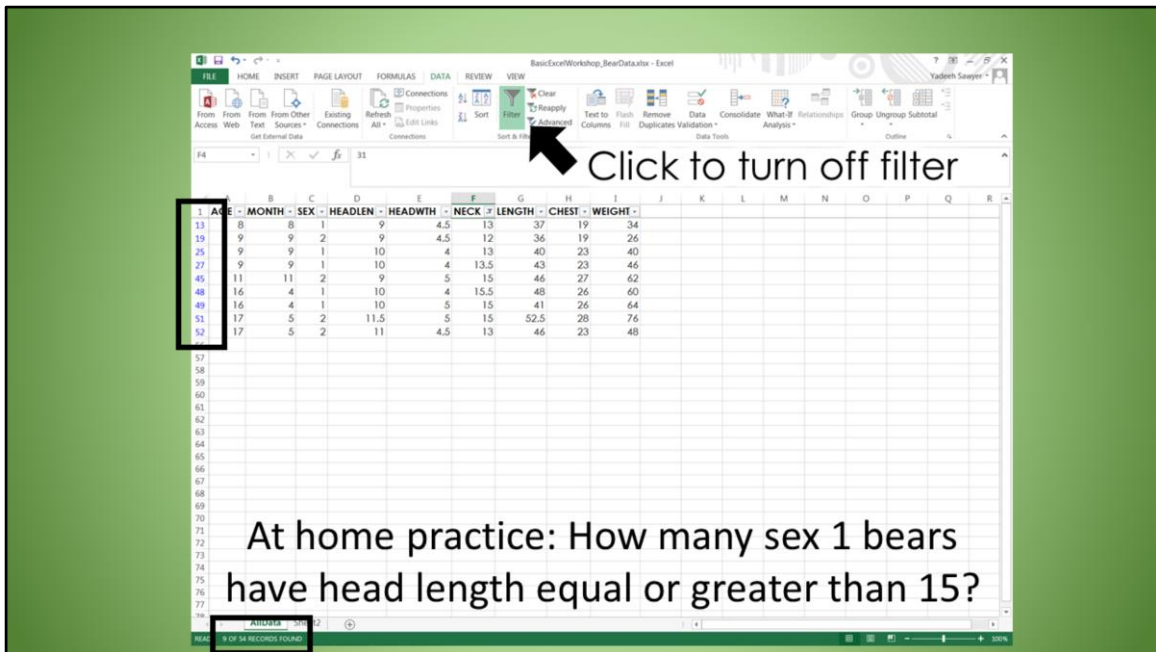
You can tell that the filter is on because there are now arrows for each header, one of which has a filter symbol, and the row numbers may become blue.

Then, to know how many values fit the criteria you applied, just look at the bottom of the workbook and it tells you how many records were found!

You can have multiple filters at a single time, but it is important to note that the filter function does not eliminate values, but only temporarily hides them. So, you should NOT perform any type of analysis on the filtered data, because the analysis includes hidden values. So make sure to turn the filter OFF before doing ANY analysis on the data.

If you want to do analysis on a subset of data, use the sort function instead.

For practice on your own at a later time, you can determine how many Sex 1 Bears have a Head Length equal or greater than 15? So you will set 2 filters. Take a second to answer this question using the filter function. (Answer: 11)
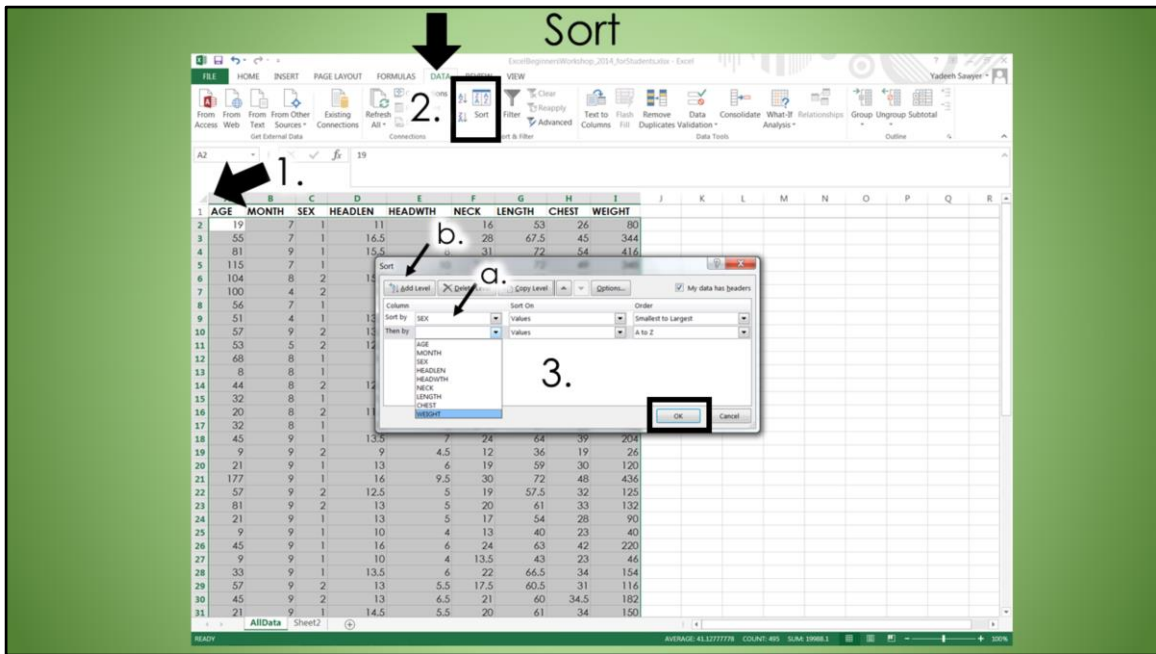
For the sort function, again, since it was one of the required videos, so I'm going to go over it fairly quickly, but is an extremely helpful option once you have your data entered. This allows you to sort your data, with multiple priorities, if desired. First, to ensure that your entire data set is included in the sorting, click the top left cell. If you want to sort a subset of the values, then only select those. From the data tab, select the Sort icon. If you have a header row, make sure you have the my data has headers box checked. Then, select the column you want to be sorted first, then you can add levels, for example Sex then Weight, so sex 1 will be on top and 2 on the bottom, then within sex 1, smallest weight is on top, then heaviest is on the bottom. The data you'll open is already sorted by "sex". But, for practice, you can sort the data by any of the other attributes.

Lastly, you can format the cells to have the appearance that you want. This includes things from font size and color, to borders, and shown here, the type of value you enter into a cell. If you want currency, text, numbers, etc. You just highlight the cells you want to format, right click, then select format cells. You'll have to play with this one on your own to explore all of the options. I've already formatted the boxes in the Stats worksheet for you to be set to 2 decimal places, and the final table to have boarders around it so it is easier to read. But, you can try to replicate what I've already done.