

What is expected during your in-class exercise on Histograms?

This exercise has you and fellow team members collecting data required by your team's Personal Data project and then plotting the data as a histogram you will create. It is meant to be a "warm-up" exercise for you and your team partners for the larger community safety project.

So, we want you to begin to feel comfortable collecting data, then arranging the data for creation of a histogram, and then making (with pencil and graph paper) your own histogram. We know that there are computer apps that let you make histograms on the computer, and you and your Team may select this option for your community project. But now, there is no substitute for pencil and paper@.

Once you create your histogram, we want you to label the **mean** or average, **mode** and **median**. Remember the definitions below:

Mean or average of a set of numbers: Add the N numbers and divide by N. That's the average.

Median:

Histograms: It's the value on the horizontal axis corresponding to half of the numbers represented on the histogram being less than this value and half being more than this value. It's the "50-50 point" or the "balancing point" of the histogram.

Distributions: It's the point on the horizontal axis of the graph of the distribution that has half of the area under the distribution to the left of this point and half to the right of this point. There is a 0.5 probability that the numerical value drawn from the distribution will be less than the median and a 0.5 probability that it will be more.

Mode: Histograms or distributions: It is found at the peak value of the histogram or distribution. It is the top of the mountain. If this peak or maximum value occurs at $X = 7$ (where the horizontal axis is the X-axis), then the mode of this histogram or distribution is 7.

Finally, we want you to write down some comments about how the mean is (or is not) a good depiction of your team's Personal Data experience. You may want to bring in the smallest and largest entries in your histogram into this discussion.

Have fun!