CSSU

- A problem may ask you to compare or describe the data this means you need to reference CSSU!
- Remember to use complete sentences!
- Compare using language like "less than," "greater than," "higher than," etc..
- Compare center using median for skewed data (write mean in parentheses)
- Compare spread using IQR for skewed data (write standard deviation in parentheses)
- Include a conclusion statement that uses two pieces of CSSU evidence. Remember to use language such as, "The data suggest that..." Don't restate the entire CSSU in your conclusion.

Histograms

- Always label axes
- Include a title
- Consistent intervals
- No left-side gap
- axes labeled with units/frequency
- Make bin widths appropriate to display the data

Dotplot

- title, dots stacked, consistent scale, axis labeled with units

Boxplot

- title
- outliers shown (if applicable)
- five-number summary labeled on box
- consistent scale
- axis labeled with units

Stemplots

- Include a title
- Always include a key with units
- Ascending stems, ascending leaves

Comparison Graphs

- Side-by-side dotplots (with the SAME domain and scale for both dotplots)
- Back-to-back stemplots (with double-sided key and leaves ascending from stems in both directions)
- Side-by-side histograms (with the SAME domain, range, and bin width for both histograms)
- Parallel boxplots (on the SAME x-axis)

Calculator Things

- Notation: normalcdf(lower = _____, upper = _____, mean = _____, standard deviation = _____)
- use normalcdf to find an area under a normal curve
- inverseNorm(area = ____, μ =____, σ =____)

Given	Want	Use
Percentile (area)	z-score or x-value	inverseNorm
z-score or x-value	Percentile (area)	normalCDF*

*We never use NormalPDF because the Normal distribution is continuous, not discrete!

Normal distributions

- remember to graph <u>and sketch</u> normal probability plots to see if data is roughly **linear** and thus is approximately normal. Interpret your NPP with a sentence that discusses the linearity of the NPP
- remember to **draw** normal distributions, label 3 standard deviations above and below the mean, and shade the percentile (area)
- Use correct probability notation, for instance: P(X > ____) = or P(Z > ____) =
- Remember that a Normal distribution with a lower standard deviations will be taller and more narrow than a Normal distribution with a large standard deviation