Team 45

1. Is it normally distributed?
   a. The answer to this question affects which test statistic is used.
2. How many samples do we have?
   a. The answer to this question affects which test statistic is used.
3. Are all the testing procedures the same in each lab?
   a. This determines whether the data should be consistent across all labs or not.
4. What is the desired alpha?
   a. This determines the confidence interval, which can affect whether the null hypothesis is rejected or fails to be rejected.

We want an alpha of .05. This is a pretty standard value, and unless the ceramic is really expensive to produce or it is used in life-threatening machines there isn't much reason to change this value. In this case, Type II error would be saying that the ceramic is not different when it really is. We think a 10% difference (660 versus 600) should be considered different, so we want a power of 90%. We would guess that 20 samples are needed to reach this power.

MATLAB Plots of Data --