CAN YOU DO THESE?

1. Determine the null and alternative hypotheses given a problem
2. Calculate the test statistic (BY HAND **and** using technology) and p-value (by hand **or** using technology) for both proportions and means
   1. The test statistic for one-proportion z-tests is a little tricky with the p vs
3. Identify the appropriate test to use given a problem.
4. Identify when data is statistically significant given an alpha level.
5. Describe a Type I and Type II error.
6. Carry out a **complete** significance test for **means** AND **proportions**
   1. Step 1:
      1. Pop/Para
      2. Hypotheses
      3. Identify test
   2. Step 2: Conditions (be sure to study these for both types of test!!!!)
      1. SRS
      2. Normality \*\* Depends on test!!! \*\*
      3. Independence
   3. Step 3: Calculations
      1. Test statistics
      2. P-value
   4. Step 4: Conclusions
      1. IN CONTEXT
      2. Reference alpha value if given (or if you choose one)
      3. INCLUDE COMMENT ON P-VALUE!!!!!
      4. Make a real conclusion about the data
7. Recognized a paired t-test and carry out a one sample t-test for the differences!
   1. Your parameter in these cases is µfirst case - µsecond case
8. Construct a confidence interval for means and proportions.
   1. If you have already done steps 1 and 2 for a hypothesis test you do not need to repeat them for a confidence interval on the same data.