|  |  |  |  |
| --- | --- | --- | --- |
| **Regression**  L: scatterplot looks linear  I: 10% rule  N: residual plot scattered  E: even spread of residuals  R: random sample or randomized experiment  Look for:  Two measurements from each person  (LinRegTInt or LinRegTTest) | **Random** – best if SRS  Randomized assignment for experiments  **10% rule** – if sampling without replacement  **Df**  Single Mean: n-1  Two Means: take from calc  X2 GOF: k – 1  X2: (r – 1)(c – 1)  **Linkage**  Reject (fail to reject) Ho because p-value < (>) α | **Symbols**  Means: μ  Proportions: p  Regression: β or ρ  **Significant**  If p is low, null must go.  Reject the null.  **Hypotheses**  There is/is not enough evidence to believe Ha  **Confidence Interval**  I am 95% confident that… | Inference  1. Name the procedure.  2. Check conditions.  3. Calculations  4. Interpretation  CI: context  Test: two sentences  Linkage: p-value  Conclusion: context |
| **Chi-Square**  S: random / randomized  I: 10% rule  X: large – expected counts > 5  Look for:  Counts, matrix / table of values    (X2 –Test) | **Chi-Square GOF**  S: random / randomized  I: 10% rule  X: large – expected counts > 5  Look for:  Counts, one column of data, given set of proportions / percentages  (X2 GOF) | **Proportions**  S: random / randomized  I: 10% rule  N: np > 10 and n(1-p) > 10  Look for:  Counts, percents, proportion  One sample  (1-PropZInt or 1-PropZTest)  Two Samples  (2-PropZInt or 2-PropZTest) | **Means**  S: random / randomized  I: 10% rule  N: n > 30  Look for:  Mean, standard deviation, measurements  Paired data OR single sample  (TInterval or T-Test)  Two Samples  (2-SampTInt or 2-SampTTest) |