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| --- | --- | --- | --- |
| **Regression**L: scatterplot looks linearI: 10% ruleN: residual plot scatteredE: even spread of residualsR: random sample or randomized experimentLook for:Two measurements from each person(LinRegTInt or LinRegTTest)  | **Random** – best if SRSRandomized assignment for experiments**10% rule** – if sampling without replacement**Df**Single Mean: n-1Two Means: take from calcX2 GOF: k – 1X2: (r – 1)(c – 1)**Linkage**Reject (fail to reject) Ho because p-value < (>) α | **Symbols**Means: μProportions: pRegression: 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… | Inference1. Name the procedure.2. Check conditions.3. Calculations4. InterpretationCI: contextTest: two sentences Linkage: p-value Conclusion: context |
| **Chi-Square**S: random / randomized I: 10% rule X: large – expected counts > 5Look for:Counts, matrix / table of values (X2 –Test) | **Chi-Square GOF**S: random / randomized I: 10% rule X: large – expected counts > 5Look 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) > 10Look for:Counts, percents, proportionOne sample(1-PropZInt or 1-PropZTest)Two Samples(2-PropZInt or 2-PropZTest)   | **Means**S: random / randomized I: 10% ruleN: n > 30Look for:Mean, standard deviation, measurementsPaired data OR single sample(TInterval or T-Test)Two Samples(2-SampTInt or 2-SampTTest) |