Chi Square Notes

Steps to Chi Square:

Step 1: Determine your null hypothesis

Step 2: Determine expected based on null hypothesis

-Total results and divide by number being compared

-For Punnett squares use

Step 3: Calculate Chi Square using the equation

Step 4: Calculate degrees of freedom

Step 5: Use the Chi Square Probability Chart to see if your null hypothesis is accepted or rejected…

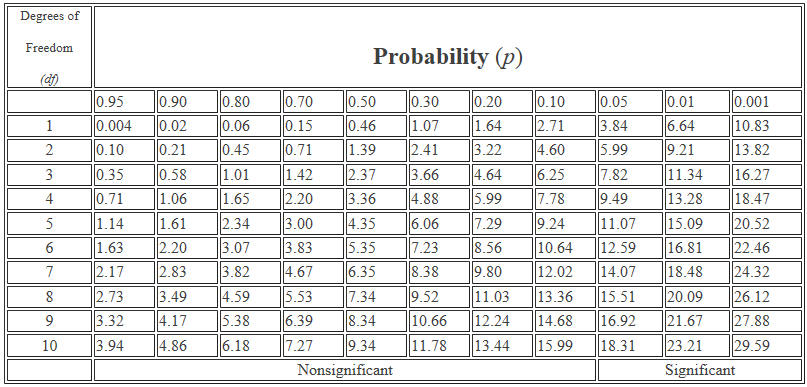
\*If .05 or less, \_\_\_\_\_\_\_\_\_\_ the hypothesis and it means something else is causing the results you are

seeing. Could be an outside environmental factor or if you are talking about genetics it could be a

different mode of inheritance.

\*If .05 of higher, \_\_\_\_\_\_\_\_\_\_\_\_\_ the hypothesis and results as being close enough and the differences

were simply caused by chance.



Example 1: A zookeeper hypothesizes that changing the intensity of the light in the primate exhibits will reduce the amount of aggression between the baboons. In exhibit A, with a lower light intensity, he observes 36 incidences of aggression over a one month period. In exhibit B, with normal lights, he observes 42 incidences of aggression. Should he support or reject his hypothesis?

Example 2: One hundred heterozygous (Bb) males mate with one hundred heterozygous (Bb) females. The observed outcome from these crossings were 28 BB, 56 Bb and 16 bb.