

$$CI = \frac{\sqrt{2}}{2} (F_{value}) \sqrt{\frac{s^2}{n} + (x_1 - \bar{x}_1)^2 (var * \beta_1) + (x_2 - \bar{x}_2)^2 (var * \beta_2) + s^2}$$

CI = 90% Confidence Interval

s = Root mean square error

n = Number of samples

x_1 = Log of Avian Oral LD50

\bar{x}_1 = Mean of Avian Oral LD50 logged values

x_2 = Rat Dermal Toxicity Index

\bar{x}_2 = Mean of rat Dermal Toxicity Index

var = Variance of rat DTI and Avian Oral LD50