

These are the Formulas you need to know. They will not be given to you:

Exam 1 Formulas (see Exam 1 Study Guide, page 13):

$$Z = (\text{value} - \text{average}) / \text{SD}$$

EV and SE for sums, averages, and percents

Short-cut formula for SD for 0-1 boxes

$$Z = (\text{Value} - \text{Expected Value}) / \text{SE}$$

Exam 2 Formulas (see Exam 2 Study Guide):

Confidence Intervals using Z and t curves

Significance tests: 1 sample and 2 sample Z and t tests, chi square tests.

Type I and Type II errors and Power

Exam 3 Formulas (Exam 3 study guide, page 1):

Slope of the regression line

Significance tests for simple regression (Z and t)

Significance tests for multiple regression (Chi square and F)

ANOVA for regression and means

Post Exam 3 Formulas

3 forms of logistic regression model: ln(odds), odds, probability

Odds, and OR

Z and chi square tests

Rank sums and U for Wilcoxon Mann Whitney, Z test

Rank sums for Kruskal Wallis, Chi square test

Spearman r, Z test

These are the ONLY Formulas that will be given to you:

$$SD_{\text{errors}} = \sqrt{1 - r^2} * SD_y$$

$$SE_{\text{slope}} = \frac{SD_{\text{errors}}}{\sqrt{n} * SD_x} = \frac{\sqrt{1 - r^2}}{\sqrt{n}} * \frac{SD_y}{SD_x}$$

$$SE_{R_A} = SE_{R_B} = SE_U = \sqrt{\frac{n_A n_B (N + 1)}{12}}$$

$$H = \frac{12}{N(N + 1)} \sum_{i=1}^g \frac{(\text{obs}R_i - \text{exp}R_i)^2}{n_i}$$

$$SE_{t_s} = \frac{1}{\sqrt{n - 1}}$$