

PSYC 2317 -- Introduction to Statistical Methods
Computational Exam #2 Formula Sheet

Pearson r $\frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sqrt{\left[\sum X^2 - \frac{(\sum X)^2}{N} \right] \left[\sum Y^2 - \frac{(\sum Y)^2}{N} \right]}}$	regression equation $Y' = bX + a$	index of forecasting efficiency $1 - \sqrt{1 - r^2}$
coefficient of nondetermination $1 - r^2$	guessing error $\sqrt{\frac{\sum (Y - \bar{Y})^2}{N}}$	coefficient of determination r^2
standard error of estimate $s_Y \sqrt{1 - r^2}$	Spearman's rho $1 - \left[\frac{6 \sum D^2}{N(N^2 - 1)} \right]$	prediction error $\sqrt{\frac{\sum (Y - Y')^2}{N}}$
guessing error $\sqrt{\frac{\sum Y^2 - \frac{(\sum Y)^2}{N}}{N}}$	coefficient of alienation $\sqrt{1 - r^2}$	average standardized correlation coefficient $\frac{\sum z_r}{N}$
slope $\frac{\sum XY - \frac{\sum X \sum Y}{N}}{\sum X^2 - \frac{(\sum X)^2}{N}}$	Y-intercept $\bar{Y} - b\bar{X}$	mean $\frac{\sum X}{N} \text{ or } \frac{\sum Y}{N}$