Correlation:	**Regression:**
$r = \frac{\sum Z_X Z_Y}{n-1} = \frac{SP}{\sqrt{SS_X \cdot SS_Y}}$ $SP = \sum (X - \overline{X})(Y - \overline{Y}) = \sum XY - \frac{\sum X \sum Y}{n}$ $t = \sqrt{\frac{r^2}{(1 - r^2)/df}}$	$slope = r \cdot s_Y / s_X = \frac{\sum XY - \left[\frac{(\sum X)(\sum Y)}{n}\right]}{\sum X^2 - \frac{(\sum X)^2}{n}}$ $intercept = \overline{Y} - slope \cdot \overline{X}$ $\text{standard error of estimate} = \sqrt{\frac{SS_{residual}}{df}} = \sqrt{\frac{\sum (Y - \hat{Y})^2}{n-2}}$
χ^2 Goodness of Fit:	**χ^2 Test of Independence:**
$\chi^2 = \sum \frac{(f_O - f_e)^2}{f_e}$ $df = \text{number of groups} - 1$	$f_e = \frac{f_{column} \cdot f_{row}}{n}$ $\chi^2 = \sum \frac{(f_O - f_e)^2}{f_e}$ $df = (\text{\# of rows} - 1) \cdot (\text{\# of columns} - 1)$

Effect Sizes for χ^2:

$$\phi = \sqrt{\frac{\chi^2}{n}}$$

$$v = \sqrt{\frac{\chi^2}{n \cdot df^*}}$$

df^* is the smaller of (# of rows - 1) and (# of columns - 1)