$$\bar{x} = \frac{x_1 + x_2 + \ldots + x_n}{n}$$

$$s = \sqrt{\frac{(x_1 - \bar{x})^2 + \ldots + (x_n - \bar{x})^2}{n-1}}$$

$$r = \frac{1}{n-1} \Sigma \left(\frac{x_i - \bar{x}}{s_x}\right) \left(\frac{y_i - \bar{y}}{s_y}\right)$$

$$y = a + bx, \text{ with } b = r\frac{s_y}{s_x}; a = \bar{y} - b\bar{x}$$

$$\text{Standard score for normal distribution} = \frac{x - \mu}{\sigma}$$

$$\bar{x} \pm z^* \frac{s}{\sqrt{n}}$$

$$\hat{p} \pm z^* \sqrt{\frac{\hat{p}(1-\hat{p})}{n}}$$

$$\text{Standard score for the proportion} = \frac{\hat{p} - p}{\sqrt{\frac{p(1-p)}{n}}}$$

$$\text{Standard score for the mean} = \frac{\bar{x} - \mu}{s/\sqrt{n}}$$

$$\chi^2 = \sum \frac{(\text{observed count} - \text{expected count})^2}{\text{expected count}}$$

$$\text{degrees of freedom} = (r-1)(c-1)$$