Psychology 204 Formulae
Spring 2015

$$\mu = \frac{\Sigma x}{N}$$

$$M = \frac{\Sigma x}{N}$$

$$Range = Max(u.r.l) - Min(l.r.l)$$

$$\sigma^2 = \frac{\Sigma(x-\mu)^2}{N}$$

$$\sigma^2 = \frac{\Sigma x^2 - ((\Sigma x)^2/N)}{N}$$

$$\sigma = \sqrt{\sigma^2}$$

$$s^2 = \frac{\Sigma(x-M)^2}{n-1}$$

$$s^2 = \frac{\Sigma x^2 - ((\Sigma x)^2/N)}{n-1}$$

$$s = \sqrt{s^2}$$

$$\mu_M = \mu$$

$$\sigma_M = \sigma/\sqrt{n}$$

$$z_M = \frac{M-\mu}{\sigma/\sqrt{n}}$$

$$\chi^2 = \Sigma\frac{(O-E)^2}{E}$$

$$E = \frac{(R*C)}{Total}$$

$$t = \frac{M - \mu}{s/\sqrt{n}}$$

$$t = \frac{M_1 - M_2}{\sqrt{\frac{s_1^2}{N_1} + \frac{s_2^2}{N_2}}} = \frac{M_1 - M_2}{\sqrt{\frac{(\Sigma x_1^2 - \frac{(\Sigma x_1)^2}{N_1}) + (\Sigma x_2^2 - (\frac{(\Sigma x_2)^2}{N_2})}{N_1 + N_2 - 2} * (\frac{1}{N_1} + \frac{1}{N_2})}}$$

$$t = \frac{M_D - 0}{s_D/\sqrt{n}}$$