PSYCH 213 Midterm Formula Sheet

$$\tilde{x} = \begin{cases} x_{\left(\frac{N+1}{2}\right)} & \text{if } N \text{ is odd,} \\ \frac{x_{\left(\frac{N}{2}\right)} + x_{\left(\frac{N}{2}+1\right)}}{2} & \text{if } N \text{ is even.} \end{cases}$$

$$\text{IQR} = Q_3 - Q_1$$

$$\bar{x} = \frac{\sum x}{N}$$

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

$$s = \sqrt{\frac{\sum (x-\bar{x})^2}{N-1}}$$

$$z_i = \frac{x_i - \bar{x}}{s}$$

$$s_{\bar{x}} = \frac{s}{\sqrt{N}}$$

$$\bar{x} \pm t_{\text{crit}} \cdot s_{\bar{x}}$$

$$t = \frac{\bar{x} - \mu_0}{s_{\bar{x}}}$$

$$d = \frac{\bar{x} - \mu_0}{s}$$

$$g = d \cdot \left(1 - \frac{3}{4(N) - 9}\right)$$