

Formula Sheet for FINAL exam on 12-07-06. These formulas will be attached to your final and, as usual, the exam is not to be taken apart. Do not bring this sheet to the exam expecting to use it since **extra papers** of any kind are **not allowed** when taking the exam.

$$\sqrt{\frac{s_x^2}{n_x} + \frac{s_y^2}{n_y}}$$

$$\sqrt{\frac{\hat{p}_x \hat{q}_x}{n_x} + \frac{\hat{p}_y \hat{q}_y}{n_y}}$$

$$\sum_{i=1}^k w_i \bar{x}_i \pm z \sqrt{\sum_{i=1}^k w_i^2 \frac{s_i^2}{n_i}}$$

$$\sum_{i=1}^k w_i \hat{p}_i \pm z \sqrt{\sum_{i=1}^k w_i^2 \frac{\hat{p}_i \hat{q}_i}{n_i}}$$

$$\left( \frac{(t_0 \text{ or } z) (S_0 \text{ or } \sqrt{p_0 (1 - p_0)})}{B} \right)^2$$

B is desired half - width;  
 S<sub>0</sub> or p<sub>0</sub> from initial sample of n<sub>0</sub>;  
 (t<sub>0</sub> or z) per initial sample size n<sub>0</sub>.

$$\bar{y} + (\mu_x - \bar{x}) \hat{\rho} \frac{s_y}{s_x}$$

$$\pm z \frac{s_y}{\sqrt{n}} \sqrt{1 - \hat{\rho}^2}$$

$$e^{-\mu} \frac{\mu^x}{x!}$$