$$n = \frac{Nt^2 s_x^2}{NE^2 + t^2 s_x^2}$$

$$n = \frac{Nt^2 s_x^2}{NE^2 + t^2 s_x^2} \qquad n = \frac{Nt^2 (CV\%)^2}{N(E\%)^2 + t^2 (CV\%)^2} \qquad n = \frac{t^2 s_x^2}{E^2}$$

$$n = \frac{t^2 s_x^2}{E^2}$$

$$n = \frac{t^2 (CV\%)^2}{\left(E\%\right)^2}$$

$$s_{\bar{x}}^2 \cong \frac{\sum_{i=1}^{n} (x_i - x_{i+1})^2}{2n(n-1)} (1-f)$$

$$s_{\bar{x}}^{2} \cong \frac{\sum_{i=1}^{n} (x_{i} - x_{i+1})^{2}}{2n(n-1)} (1-f)$$

$$s_{\bar{x}}^{2} \cong \frac{\sum_{j=1}^{m} \sum_{i=1}^{n_{j}} (x_{ij} - x_{(i+1)j})^{2}}{2n \sum_{i=1}^{m} (n_{j} - 1)} (1-f)$$

$$W_h = rac{N_h}{N} = rac{A_h}{A}$$

$$\bar{x}_{st} = \frac{\sum_{h=1}^{L} N_h \bar{x}_h}{N} = \sum_{h=1}^{L} W_h \bar{x}_h \qquad \qquad s_{st}^2 = \sum_{h=1}^{L} W_h s_h^2 \qquad \qquad n = \frac{t^2 \sum_{h=1}^{L} W_h s_h^2}{E^2 + t^2 \sum_{h=1}^{L} W_h s_h^2} \qquad \qquad n = \frac{t^2 \sum_{h=1}^{L} W_h s_h^2}{E^2}$$

$$s_{st}^2 = \sum_{h=1}^L W_h s_h^2$$

$$n = \frac{t^2 \sum_{h=1}^{L} W_h s_h^2}{E^2 + t^2 \sum_{h=1}^{L} \frac{W_h s_h^2}{N}}$$

$$n = \frac{t^2 \sum_{h=1}^{L} W_h \, s_h^2}{E^2}$$

$$n_h = \frac{N_h}{N} n = W_h n$$

$$s_{\bar{x}(st)}^2 = \sum_{h=1}^L W_h^2 \frac{s_h^2}{n_h}$$

$$s_{\bar{x}(st)}^2 = \sum_{h=1}^{L} W_h^2 \frac{s_h^2}{n_h} (1 - f_h)$$
 ou

$$n_h = \frac{N_h}{N} n = W_h n \qquad s_{\bar{x}(st)}^2 = \sum_{h=1}^L W_h^2 \frac{s_h^2}{n_h} \qquad s_{\bar{x}(st)}^2 = \sum_{h=1}^L W_h^2 \frac{s_h^2}{n_h} (1 - f_h) \text{ ou } s_{\bar{x}(st)}^2 = \sum_{h=1}^L W_h^2 \frac{s_h^2}{n_h} - \sum_{h=1}^L W_h^2 \frac{s_h^2}{N} (1 - f_h)$$

$$QM_{dentro} = \frac{\sum_{i=1}^{n} \sum_{j=1}^{M} (x_{ij} - \bar{x}_{i})^{2}}{n(m-1)} = S_{d}^{2}$$

$$QM_{entre} = \frac{\sum_{i=1}^{n} m(\bar{x}_{i} - \bar{x})^{2}}{n-1}$$

$$QM_{entre} = \frac{\sum_{i=1}^{n} m(\overline{x}_i - \overline{x})^2}{n-1}$$

$$S_e^2 = \frac{QM_{entre} - QM_{dentro}}{m}$$

$$r = \frac{S_e^2}{S_e^2 + S_d^2}$$

$$n = \frac{t^2 S_x^2}{E^2 m} [1 + r(m-1)]$$

$$S_{\bar{x}}^2 = \frac{S_e^2}{n} + \frac{S_d^2}{nm}$$

$$d_{cj} = d_j + \left(\frac{DAP_j}{200}\right)$$

$$\overline{\ln(d_c)} = \frac{\sum_{j=1}^{N} \ln(d_{cj})}{N}$$

$$\bar{d}_c = \exp\left(\frac{\sum\limits_{j=1}^N \ln(d_{cj})}{N}\right)$$

$$\overline{M} = \overline{d}_c^2$$

$$\overline{M} = \overline{d}_c^2$$

$$DT = \frac{1ha}{\overline{M}} = \frac{10000 \, m^2}{\overline{M}} \qquad DA_i = DT \left(\frac{n_i}{N}\right)$$

$$DA_i = DT \left(\frac{n_i}{N}\right)$$

$$DR_i = \frac{n_i}{N}100$$

$$G_i = \frac{\pi}{40000} \sum_{i=1}^{n_i} \left(DAP_i^2 \right) \qquad GT = \sum_{i=1}^{S} G_i \qquad DoA_i = DA_i \left(\frac{G_i}{n_i} \right)$$

$$GT = \sum_{i=1}^{S} G$$

$$DoA_i = DA_i \left(\frac{G_i}{n_i}\right)$$

$$DoR_i = \frac{G_i}{GT}100$$

$$FA_i = \frac{P_i}{P}100 \qquad FR_i = \frac{FA_i}{\sum_{i=1}^{S} FA_i}100$$

$$VC_i(\%) = \frac{\left(DR_i + DoR_i\right)}{2}$$

$$VI_i(\%) = \frac{\left(DR_i + DoR_i + FR_i\right)}{3}$$