Formulaire ESTAT

Moyenne arithmétique

$$\overline{X} = \frac{\sum_{i=1}^{n} X_i}{n}$$

$$\overline{X} = \frac{\sum_{j=1}^{k} n_j \times x_j}{n}$$

$$\overline{X} = \sum_{j=1}^{k} f_j \times x_j$$

Mesures de dispersion

$$étendue = max(X_i) - min(X_i)$$

$$EIQ = Q_3 - Q_1$$

$$\text{EMA}_X = \frac{\sum_{i=1}^{n} |X_i - \overline{X}|}{n}$$

$$\text{EMA}_X = \frac{\sum_{j=1}^{k} n_j |x_j - \overline{X}|}{n}$$

$$\text{EMA}_X = \sum_{j=1}^{k} f_j |x_j - \overline{X}|$$

$$S_X^2 = \frac{\sum_{i=1}^{n} (X_i - \overline{X})^2}{n}$$

$$S_X^2 = \frac{\sum_{j=1}^{k} n_j (x_j - \overline{X})^2}{n}$$

$$S_X^2 = \sum_{j=1}^{k} f_j (x_j - \overline{X})^2$$

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

Mesures de covariance

$$S_{XY} = \frac{\sum_{i=1}^{n} (X - \overline{X})(Y - \overline{Y})}{n}$$

Mesures de corrélation

$$r_{XY} = \frac{S_{XY}}{S_X S_Y} = \frac{[(X - \overline{X})(Y - \overline{Y})]/n}{S_X S_Y}$$