

bogus

$$M_{2,n} = \sum_{i=1}^n (x_i - \bar{x}_n)^2$$

$$M_{2,n} = M_{2,n-1} + (x_n - \bar{x}_{n-1})(x_n - \bar{x}_n)$$

$$\sigma_n = \frac{M_{2,n}}{n}$$

$$\delta = \bar{x}_B - \bar{x}_A$$

$$M_{2,X} = M_{2,A} + M_{2,B} + \delta^2 \cdot \frac{n_A n_B}{n_X}$$