

$$SX = \text{Sum}[k \Delta t, \{k, 0, n-1\}]$$

$$SY = \text{Sum}\left[f_0 k \Delta t + \frac{1}{2} \Delta f (\Delta t k)^2, \{k, 0, n-1\}\right]$$

$$SXX = \text{Sum}[(k \Delta t)^2, \{k, 0, n-1\}]$$

$$SXY = \text{Sum}\left[(k \Delta t) \left(f_0 k \Delta t + \frac{1}{2} \Delta f (\Delta t k)^2\right), \{k, 0, n-1\}\right]$$

$$\frac{1}{2} (-1+n) n \Delta t$$

$$\frac{1}{12} (-1+n) n \Delta t (6 f_0 - \Delta f \Delta t + 2 n \Delta f \Delta t)$$

$$\frac{1}{6} (-1+n) n (-1+2 n) \Delta t^2$$

$$\frac{1}{24} (-1+n) n \Delta t^2 (-4 f_0 + 8 f_0 n - 3 n \Delta f \Delta t + 3 n^2 \Delta f \Delta t)$$

$$m = \frac{n SXY - SX SY}{n SXX - SX^2} \quad // \text{ Simplify}$$

$$f_0 + \frac{1}{2} (-1+n) \Delta f \Delta t$$