$$f(x) \cong a(x-x_2)^2 + b(x-x_2) + c$$

$$a = (f[x_1, x_2] - f[x_0, x_1]) / (h_2 - h_1)$$

$$b = f[x_1, x_2] + a h_2$$

$$c = f(x_2)$$

- $h_1 = x_1 - x_0$
- $h_2 = x_2 - x_1$

$$c = f(x_2) \longrightarrow f(x_2) = a(\underbrace{(x_2) - x_2}_{0})^2 + b(\underbrace{x_2 - x_2}_{0}) + c$$

$$(x_0, f(x_0)) \text{ y } (x_1, f(x_1)) \longrightarrow \delta_0$$

$$(x_1, f(x_1)) \text{ y } (x_2, f(x_2)) \longrightarrow \delta_1$$

$$\Rightarrow \delta_0 = \frac{f(x_1) - f(x_0)}{h_0} \qquad \delta_1 = \frac{f(x_2) - f(x_1)}{h_1}$$

$h_0 \rightarrow (x_1 - x_0)$ $\qquad$ $h_1 \rightarrow (x_2 - x_1)$

$$\Rightarrow (h_0 + h_1) b - (h_0 + h_1)^2 a = h_0 \delta_0 + h_1 \delta_1$$

$$h_1 b - (h_1)^2 a = h_1 \delta_1$$

- $$a = \frac{\dfrac{f(x_2) - f(x_1)}{h_1} - \left(\dfrac{f(x_1) - f(x_0)}{h_0}\right)}{h_1 + h_0}$$

- $$b = a h_1 + \frac{f(x_2) - f(x_1)}{h_1}$$

- $C = f(x_2)$