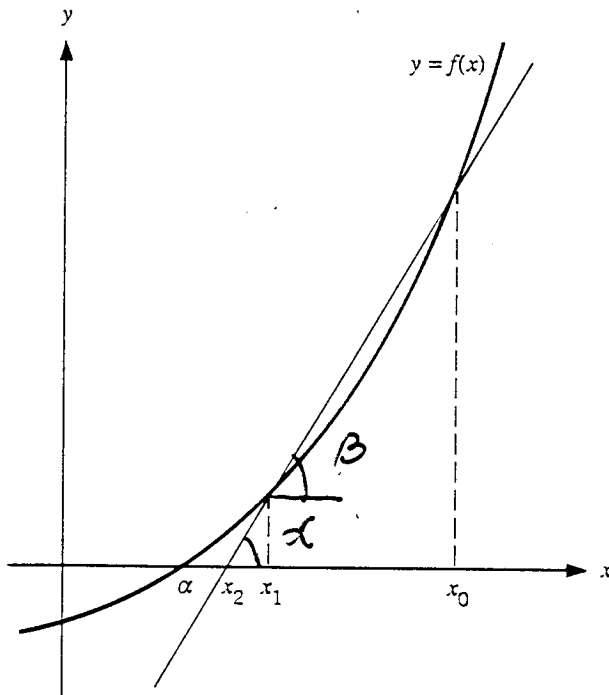


Figure 4.3. A schematic of the secant method:  $x_1 < \alpha < x_0$ .



koty  $\alpha$  i  $\beta$  te same

Figure 4.4. A schematic of the secant method:  $\alpha < x_1 < x_0$ .

$$\operatorname{tg} \beta = \frac{f(x_1) - f(x_0)}{x_1 - x_0} = \frac{0 - f(x_1)}{x_2 - x_1} = \operatorname{tg} \alpha$$

Solving for  $x_2$ , we get

$$x_2 = x_1 - f(x_1) \cdot \frac{x_1 - x_0}{f(x_1) - f(x_0)}$$