3/b

$$P_1(x) = f[x_0] + f[x_0, x_1](x - x_0) + \dots$$

$$\dots + f[x_0, x_1, x_2](x - x_0)(x - x_1) + \dots$$

$$\dots + f[x_0, x_1, \dots, x_n](x - x_0)(x - x_1) \cdots (x - x_{n-1})$$

$$P_3(x) = f[x_0] + f[x_0, x_1](x - x_0) + \dots$$

$$\dots + f[x_0, x_1, x_2](x - x_0)(x - x_1) + \dots$$

$$\dots + f[x_0, x_1, x_2, x_3](x - x_0)(x - x_1) \cdots (x - x_2)$$

$$\longrightarrow f[x_1] = a_0 = a_n = \frac{f(x_n) - P_{n-1}(x_n)}{(x_n - x_0)(x_n - x_1) \cdots (x_n - x_{n-1})}$$

$$= \frac{f(x_0) - P_{-1}(x_0)}{(x_0 - x_{-1})} \quad (\dots ?)$$

OR...

$$a_0 = f[x_0] = \frac{f[x_1] - f[x_0]}{x_0 - x_0} \quad (\dots \text{NO})$$

$f(x) = e^x$ !

$x_0 = 0$ !

$x_1 = 1$ !