

$$a) \quad P_0(x) = \frac{(x-x_1)(x-x_2)}{(x_0-x_1)(x_0-x_2)}$$

$$P_1(x) = \frac{(x-x_0)(x-x_2)}{(x_1-x_0)(x_1-x_2)}$$

$$P_2(x) = \frac{(x-x_0)(x-x_1)}{(x_2-x_0)(x_2-x_1)}$$

$$P(x) = f(x_0) \left(\frac{(x-x_1)(x-x_2)}{(x_0-x_1)(x_0-x_2)} \right) + f(x_1) \left(\frac{(x-x_0)(x-x_2)}{(x_1-x_0)(x_1-x_2)} \right) + f(x_2) \left(\frac{(x-x_0)(x-x_1)}{(x_2-x_0)(x_2-x_1)} \right)$$