

PROBLEMA 7.2

$$f(x) = e^x \sin x$$

$$x_0 = 0$$

$$P_5(x)$$

$$f(x) = e^x \cdot \sin x$$

$$= \left( 1 + x + \frac{x^2}{2} + \frac{x^3}{3!} + \frac{x^4}{4!} + o(x^4) \right) \cdot$$

$$\cdot \left( x - \frac{x^3}{3!} + \frac{x^5}{5!} + o(x^5) \right)$$

$$= x + x^2 + \frac{x^3}{3} - \frac{x^5}{30} + o(x^5)$$