

$$\text{Taylor}(\sin(x), x, 6, 1)$$

$$\left(\begin{array}{l} \text{TI 92,} \\ \text{e.s.} \end{array} \right)$$

$$Y1 = \sin(x)$$

$$Y2 = [\text{result}]$$



$$\#9 \quad f(x) = e^x \cos x$$

$$f'(x) = e^x [(-\sin x) + \cos x]$$

$$f''(x) = e^x \left\{ -\sin x - \overset{-2 \sin x}{\cos x} + \cos x - \sin x \right\}$$

$$f'''(x) = -2e^x [\cos x + \sin x]$$

$$x_0 = 0$$

$$f(x_0) = 1$$

$$P_2(x) = 0x^2 + x + 1$$

$$f'(x_0) = 1$$

$$f''(x_0) = 0$$

$$R_2(x) = \frac{-2e^{\xi(x)} [\cos(\xi(x)) + \sin(\xi(x))]}{\zeta} (x-0)^3$$

$$\xi(x) \in [0, .5]$$