

1)

$$F(x) = 1,1x^4 - 2,2x^3 + 0,7x^2 - 2x + 2$$

Derivamos:

$$F'(x) = 4,4x^3 - 6,6x^2 + 1,4x - 2 + 0$$

Reemplazamos:

$$F'(x) = 4,4(1,25)^3 - 6,6(1,25)^2 + 1,4(1,25) - 2 + 0$$

$$F'(1,25) = 0,098438$$

$$F(x) = e [-0,0983438 - 0,0983438, -0,0983438 + 0,0983438]$$

$$F(x) = e [-2,067188, -1,870312]$$

2)

$$f(x) = \cos(x) \ln(x)$$

$$f'(x) = \frac{\cos(x)}{x} - \sin(x) \ln(x)$$

$$f(\bar{x}) = \frac{\pi}{3} = 0,36963238 = \text{Valor aproximado}$$

$$\Delta f(\bar{x}) = \frac{\cos \frac{\pi}{3}}{\frac{\pi}{3}} - \sin \frac{\pi}{3} * \ln \left(2 \left(\frac{\pi}{3} \right) \right) * 0,005 = -8,137862419 \times 10^{-4} = \mathbf{E. Aproximado}$$

$$f(x) \in [(0,36963238) - (-8,137862419 \times 10^{-4})] = [(0,36963238) + (-8,137862419 \times 10^{-4})] =$$

$$f(x) [0,3704461662, 0,36881859380]$$