Cálculos de la Serie de Taylor

1. f(0.4):

f(0.4) = 0.9 \* 0.4^3 - 1.4 \* 0.4^2 + 3 \* 0.4 - 4

f(0.4) = -2.9664

2. f'(x) y f'(0.4):

f'(x) = 2.7x^2 - 2.8x + 3

f'(0.4) = 2.312

3. f''(x) y f''(0.4):

f''(x) = 5.4x - 2.8

f''(0.4) = -0.64

4. f'''(x) y f'''(0.4):

f'''(x) = 5.4

f'''(0.4) = 5.4

La serie de Taylor hasta el tercer término es:

T(x) = f(0.4) + f'(0.4)(x - 0.4) + f''(0.4)/2!(x - 0.4)^2 + f'''(0.4)/3!(x - 0.4)^3

T(0.5):

T(0.5) = -2.9664 + 2.312(0.1) - 0.64/2(0.1)^2 + 5.4/6(0.1)^3

T(0.5) = -2.7375