

Linearization and Differentials

Linearization – Standard Linear Approximation

Differential means

$$f(x) = \sqrt{x^2 + 9}, a = -4$$

$$f(x) = \sin x \quad \text{at} \quad x = \pi \quad (\pi, 0)$$

$$f(x) = (1+x)^k \quad @ x=0$$

$$y = x^3 - 3\sqrt{x}$$