

Given $f(x)$ Given $f(x) = x^4 + 4x^3 - 5x^2 + 6x - 8$

First Derivative

Find $f'(x)$

Second Derivative

Find $f''(x)$

Third Derivative

Find $f'''(x)$

Fourth Derivative

Find $f''''(x)$ n^{th} DerivativeGiven $f(x)$

Notation for Higher Order Derivatives

First Derivative

 $f'(x)$ y' $\frac{dy}{dx}$ $\frac{d}{dx} [f(x)]$

Second Derivative

 $f''(x)$ y'' $\frac{d^2y}{dx^2}$ $\frac{d^2}{dx^2} [f(x)]$

Third Derivative

 $f'''(x)$ y''' $\frac{d^3y}{dx^3}$ $\frac{d^3}{dx^3} [f(x)]$

Fourth Derivative

 $f''''(x)$ y'''' $\frac{d^4y}{dx^4}$ $\frac{d^4}{dx^4} [f(x)]$ n^{th} Derivative $f^{(n)}(x)$ $y^{(n)}$ $\frac{d^ny}{dx^n}$ $\frac{d^n}{dx^n} [f(x)]$

Given $f(x) = x^5 - x^3 + 2x^2 - 6$

Find $f'(x)$

Find $f''(x)$

Find $f'''(x)$

Find $f''''(x)$

Given $f(x) = x^3 + \sin x$

Find $f'(x)$

Find $f''(x)$

Find $f'''(x)$

Find $f''''(x)$

Given $f(x) = x^3 + x \cos x$

Find $f'(x)$

Find $f''(x)$

Find $f'''(x)$