

고차미분 (Higher Derivatives)

▶ Start

▶ End

▶ Start

▶ End

Definition

[Empty content area for the definition]

▶ Start

▶ End

Definition

$$(f')'$$

▶ Start

▶ End

Definition

$$(f')' = f''$$

▶ Start

▶ End

Definition

$(f')' = f''$ the second derivative of f

▶ Start

▶ End

Definition

$$\frac{d}{dx} (f')' = f'' \text{ the secon derivative of } f$$

▶ Start

▶ End

Definition

$$\frac{d}{dx} \left(\frac{dy}{dx} \right) = (f')' = f'' \text{ the second derivative of } f$$

▶ Start

▶ End

Definition

$$\begin{aligned}(f')' &= f'' \text{ the second derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2}\end{aligned}$$

▶ Start

▶ End

Definition

$$\begin{aligned}(f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}\end{aligned}$$

▶ Start

▶ End

Definition

$$(f')' = f'' \text{ the second derivative of } f$$
$$\frac{d}{dx} \left(\frac{dy}{dx} \right) = \frac{d^2 y}{dx^2} \text{ (Leibniz notation)}$$

$$(f'')'$$

▶ Start

▶ End

Definition

$$(f')' = f'' \text{ the secon derivative of } f$$
$$\frac{d}{dx} \left(\frac{dy}{dx} \right) = \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}$$

$$(f'')' = f'''$$

▶ Start

▶ End

Definition

$$(f')' = f'' \text{ the secon derivative of } f$$
$$\frac{d}{dx} \left(\frac{dy}{dx} \right) = \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}$$

$$(f'')' = f''' \text{ the derivative of secon derivative of } f$$

▶ Start

▶ End

Definition

$$(f')' = f'' \text{ the secon derivative of } f$$
$$\frac{d}{dx} \left(\frac{dy}{dx} \right) = \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}$$

$$\frac{d}{dx} (f'')' = f''' \text{ the derivative of secon derivative of } f$$

▶ Start

▶ End

Definition

$$\begin{aligned}(f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}\end{aligned}$$

$$\begin{aligned}(f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right)\end{aligned}$$

▶ Start

▶ End

Definition

$$\begin{aligned}(f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}\end{aligned}$$

$$\begin{aligned}(f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3}\end{aligned}$$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

$$f^{(n)}$$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

$$f^{(n)} \quad \text{the } n\text{th derivative of } f$$

▶ Start

▶ End

Definition

$$(f')' = f'' \text{ the secon derivative of } f$$

$$\frac{d}{dx} \left(\frac{dy}{dx} \right) = \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)}$$

$$(f'')' = f''' \text{ the derivative of secon derivative of } f$$

$$\frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) = \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)}$$

$f^{(n)}$ the nth derivative of f

$y^{(n)}$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

$f^{(n)}$ the nth derivative of f

$$y^{(n)} = f^{(n)}(x)$$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

$f^{(n)}$ the nth derivative of f

$$y^{(n)} = f^{(n)}(x) = \frac{d^n y}{dx^n}$$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} f^{(n)} &\text{ the } n\text{th derivative of } f \\ y^{(n)} &= f^{(n)}(x) = \frac{d^n y}{dx^n} \text{ (Leibniz notaion)} \end{aligned}$$

▶ Start

▶ End

Definition

$$\begin{aligned} (f')' &= f'' \text{ the secon derivative of } f \\ \frac{d}{dx} \left(\frac{dy}{dx} \right) &= \frac{d^2 y}{dx^2} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} (f'')' &= f''' \text{ the derivative of secon derivative of } f \\ \frac{d}{dx} \left(\frac{d^2 y}{dx^2} \right) &= \frac{d^3 y}{dx^3} \text{ (Leibniz notaion)} \end{aligned}$$

$$\begin{aligned} f^{(n)} &\text{ the } n\text{th derivative of } f \\ y^{(n)} &= f^{(n)}(x) = \frac{d^n y}{dx^n} \text{ (Leibniz notaion)} \end{aligned}$$

Github:

<https://min7014.github.io/math20240203001.html>

Click or paste URL into the URL search bar,
and you can see a picture moving.