

# 微積分作業

September 26, 2025

- 1 Find the derivative of the function using the limit process.**

$$f(x) = \frac{1}{x^2}$$

- 2 find the derivative of the function.**

$$f(x) = \frac{2}{\sqrt[3]{x}} + 3\cos x$$

- 3 find the indicated higher-order derivative.**

$$f^{(4)}(t) = t\cos(t), \text{ find } f^{(5)}(t)$$

- 4 find the second derivative of the function.**

$$f(x) = \sec^2(\pi x)$$