



## Quiz 8.5 – The Fundamental Theorem of Calculus (Part 2)

1. (1 pt) [alfredLibrary/AUCI/chapter8/lesson5/quiz/FTC1ptLpg](#)

$$\text{If } f(x) = \int_0^x (t^3 + 3t^2 + 5) dt,$$

$$\text{then } f'(x) = \underline{\hspace{2cm}},$$

$$\text{and } f''(x) = \underline{\hspace{2cm}}.$$

2. (1 pt) [alfredLibrary/AUCI/chapter8/lesson5/quiz/FTC2ptLpg](#)

$$\text{If } f(x) = \int_x^5 t^3 \cos(t) dt,$$

$$\text{then } f'(x) = \underline{\hspace{2cm}}.$$

3. (1 pt) [alfredLibrary/AUCI/chapter8/lesson5/quiz/FTC3ptLpg](#)

$$\text{If } f(x) = \int_0^{x^2} \frac{t^2 - 4}{\sin t} dt,$$

$$\text{then } f'(x) = \underline{\hspace{2cm}}.$$