

Name: _____

Quiz 21, section 5.3, Simplify your answers!

1. (2 pts) Find the derivative of $f(x) = \int_6^x \frac{t}{t^2 + 1} dt$

2. (2 pts) Find the derivative of $f(x) = \int_x^7 \ln(e^t + 1) dt$

3. (3 pts) Find the derivative of $f(x) = \int_{-3}^{x^3} t^3 - 2t^2 + 5t + 6 dt$

4. (3 pts) Find the derivative of $f(x) = \int_{3x+1}^{e^x} \ln t + \tan^{-1} t dt$