Quiz

1. Find y'' for $y = \left(3 + \frac{2}{x}\right)^3$. (5 pts.)

2. Find the value of $(f \circ g)'$ at the given value of x. (5 pts.)

$$f(u) = \frac{4u}{u^2 + 3},\ u = g(x) = 3x^2 + 5x + 2,\ x = 0$$

3. Find the derivative of y with respect to t for $y = \log_2(16t^{\ln 2})$. (5 pts.)

4. Let $f(x) = 3x^3 - 5x^2 - 3$, for $x \geq 1.5$. Find the value of $\frac{\mathrm{d}f^{-1}}{\mathrm{d}x}$ at the point $x = 781 = f(7)$. (5 pts.)