

Name:

Quiz 4

Question 1 (5 points)

Differentiate,

$$f(x) = \sqrt{x^3 + x^2 + 1}$$

Question 2 (5 points)

Differentiate

$$g(x) = \left(\frac{1-x}{x+1} \right)^2$$

Question 3 (10 points) Let $y = \sqrt{u^4 + 1}$ and $u = 3x^2 + 1$, find $\frac{dy}{du}$, $\frac{du}{dx}$ and $\frac{dy}{dx}$