Quiz 3A, Business Calculus

Spring 2017 - Dr. Graham-Squire

Name: _____

1. (3 points) Use derivative rules to calculate the derivative. Simplify your answer, if possible.

$$f(x) = \frac{x^7 - 3x^4}{\left(\frac{1}{x}\right)}$$

2. (4 points) Calculate the derivative using derivative rules. You do NOT need to simplify your answer (though you can if you want, for fun).

$$h(x) = \sqrt{7x^2 - 3}(x^3 + 2x + 5)$$

3. (3 points) State what derivative rules (between the chain, quotient and product rules. You do not need to mention power rule and other such), and in what order, you would use to calculate the derivative below. You do NOT need to actually calculate the derivative, though you can if you want for fun.

$$f(x) = \left(3x^{-2} + 10 + \left(\frac{x^2 - 7}{(x+1)^4}\right)(2x^3 - 5x)^3\right)^5$$