

Derivative Practice - power, product, quotient, chain IV.doc

Name\_\_\_\_\_

Use the power, product, quotient, and chain rules to find the derivative of the following functions. **Simplify your answers!**

1)  $f(x) = \frac{-2}{x}$

2)  $f(x) = \frac{3\sqrt{x}}{5}$

3)  $f(x) = \frac{5}{(x^3 - 3)^4}$

4)  $f(x) = 3x(8x - 3)^7$



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

6)  $f(x) = (x+1)^5(x^2-3)$

Find the derivative of the function below. Do NOT simplify answers.

7)  $f(x) = (\sqrt{x} + 5)^3(x^3 - 2x + 1)^4$

