AP Calculus AB

Chain Rule Practice

HW 2-8

Name: _____

Differentiate.

1) $y = (-5x^3 - 3)^3$

2) $y = \sqrt{-2x^2 + 1}$

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

4) $y = (-x^4 - 3)^{-2}$

5) $y = (3x^3 + 1)(-4x^2 - 3)^4$

6) $f(x) = \dfrac{(x^3 + 4)^5}{3x^4 - 2}$

7) $y = (3x - 1)(-3x^2 - 4)^{-3}$

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

9) $f(x) = \left(\dfrac{x^5 + 4}{x^2 - 5}\right)^{1/5}$

10) Find the equation of the normal line to $y = (2x - 6)^3$ where $x = 1$.