

Name: _____

Find $f'(x)$:

a) $f(x) = \frac{4}{(3x^3+5)^2}$

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

$$f'(x) = -8(3x^3+5)^{-3}(9x^2)$$

$$\text{or } \frac{-72x^2}{(3x^3+5)^3}$$

b) $f(x) = \sqrt[3]{2x^7+6x}$

$$f(x) = (2x^7+6x)^{1/3}$$

$$f'(x) = \frac{1}{3}(2x^7+6x)^{-2/3}(14x^6+6)$$

$$\text{or } \frac{14x^6+6}{3 \cdot \sqrt[3]{2x^7+6x}^2}$$