

Name: _____ Quiz 2: Ch 3.1 – 3.3

Draw a box around your final answers. No partial credit will be given.

1. Find the derivative of the function: $f(x) = 5x^2 - 3x + 7$

2. Find the derivative of the function: $f(x) = 3\sqrt{x}$

3. Let $f(x) = 2x^3 - 4x$. Find $f'(-2)$.

4. Find the derivative of the function: $f(t) = \frac{4}{t^4} - \frac{3}{t^3} + \frac{2}{t}$

5. Find the derivative of the function: $f(x) = 2x(x^2 + 1)$

[2 lines]

6. Find the derivative of the function: $f(x) = (3x + 1)(x^2 - 2)$ [2 lines]

7. Find the derivative of the function: $f(s) = \frac{s^2 - 4}{s + 1}$ [2 lines]

8. Find the derivative of the function: $f(x) = (2x - 1)^3$ [2 lines]

9. Find the derivative of the function: $f(x) = (x^2 + 1)^3 - (x^3 + 1)^2$ [2 lines]

10. Find the derivative of the function: $f(x) = \left(\frac{x + 3}{x - 2}\right)^3$ [2 lines]