

Extra Practice before Quiz

Name: _____

Unit 5 ICM Derivatives

Period: _____

Show your work for credit.

1. Find the derivative of $f(x) = \sqrt{x-7}$. You must show all work using the limit definition. If you find the derivative using the power rule only, you will NOT receive credit!!

2. Using the Power Rule, find the derivative of $f(x)$. Express your answer using positive whole exponents and radicals.

$$f(x) = 3\sqrt{x} - \frac{7}{x^4} + 6\sqrt[4]{x^3} + 8x - 11$$

3. Find the equation of the line tangent to the function using the given info. Show your work.

$$f(x) = 6x^3 + 4 - x \quad \text{when } x = 2$$

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