Section 3.2: Working with Derivatives

MATH 130: Calculus I

Course Section _____ Name (Print): _____

Due: Wednesday, February 21, 2018 at the beginning of class

After reading Section 3.2 (pages 136-141 in the text), respond to the following questions **on this handout**. Be sure to staple your pages together before turning it in. **You must answer all parts to all questions to earn full credit!!!** See the salmon homework guidelines handout for details. You are encouraged to take additional notes wherever you are keeping your class notes.

Response Section

1. Suppose that $f(x)$ is a line with a slope of -3. Draw the graph of $f'(x)$. Then write one sentence explaining why this is the graph.

2. If $f'(7) = 0$, what does that tell you about the original function $f(x)$? Write a complete sentence to explain.

3. Write out Theorem 3.1 on page 138. This is a VERY important theorem!!!

4. Is it possible for a function to be continuous at $x = 2$, but not differentiable at $x = 2$? If so, draw a graph of such a function. If not, write a full sentence explaining.

5. When a function is not differentiable at a point $x = a$, one of three things must be happening. What are they?

Questions/Overview Section

6. Write down any questions you have on the reading. Be as specific as possible! See the salmon homework guidelines handout for details.

Reflection Section

7. Write **two or three** sentences reflecting on the process of your recent work in the course. See the salmon homework guidelines handout for details.

Time Section

8. How much time did you spend on this reading assignment? _____