

Math 131 - Quiz 5

September 28, 2023

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (5 points) Let $f(x) = 3x^2 + 5x$. Use the limit definition of derivative (not our differentiation rules) to find $f'(x)$.

2. (5 points) Let $f(x) = 3x^2 + 4\sqrt{x}$.

- (a) Use our differentiation rules to determine $f'(x)$.

- (b) Find an equation of the line tangent to the graph of f at the point where $x = 4$.