# Math 131 - Quiz 6

Name _____

February 27, 2023

Score _____

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

1. (3 points) Use derivative rules to determine each derivative. Do not simplify your answers.

   (a) $\dfrac{d}{dw}(4w^2 - 1)^5$

   (b) $\dfrac{d}{dx}\cos(\sqrt{x})$

2. (3 points) Find $f''(x)$ when $f(x) = 2\sec x$.

3. (4 points) A potato is fired upward from a potato gun in such a way that its height in feet after $t$ seconds is given by $s(t) = -16t^2 + 80t + 96$.

   (a) Determine the maximum height of the potato.

   (b) Determine when the potato hits the ground.