

Name: _____

QUIZ 6

MATH 200, SECTION 9

March 5, 2021

Directions: Closed book, closed notes, no calculators.

By submitting this quiz you affirm that you agree with this statement: *On my honor, I have neither given nor received unauthorized aid on this assignment, and I pledge that I am in compliance with the VCU Honor System.*

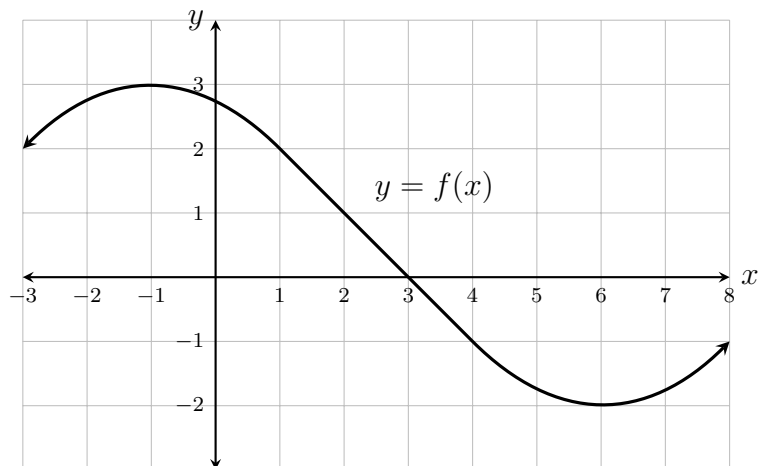
1. $\frac{d}{dx} \left[\frac{x^3 + 7x - 3}{e^x} \right] =$

2. Find all x for which the tangent line to $y = f(x) = \frac{1}{3}x^3 - \frac{3}{2}x^2 + 2x$ at $(x, f(x))$ is horizontal.

3. Answer the question involving the function $f(x)$ whose graph is sketched below.

(a) State all x for which $f'(x) = 0$.

(b) Let $g(x) = f(x) \cdot f(x)$. Find $g'(2)$.



(c) Let $h(x) = \frac{f(x)}{x}$. Find $h'(6)$.