MEMORIAL UNIVERSITY OF NEWFOUNDLAND

DEPARTMENT OF MATHEMATICS AND STATISTICS

Section 3.2

Math 1000 Worksheet

Fall 2025

For practice only. Not to be submitted.

- 1. Differentiate each of the following.
 - (a) $y = \sqrt{4e^x + 2}$
 - (b) $y = \sin(x^2 7x)$
 - (c) $f(x) = e^{5^x}$
 - (d) $y = \cos(\cos(x))$
 - (e) $f(x) = (5 2x)^{-4}e^{\sec(x)}$
 - (f) $f(t) = \tan(t^2 e^t)$
 - (g) $y = \frac{x^2}{(x^3 x)^6}$
 - (h) $h(x) = \sin(\cos(\tan(x)))$