

MEMORIAL UNIVERSITY OF NEWFOUNDLAND  
DEPARTMENT OF MATHEMATICS AND STATISTICS

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SECTION 3.2

Math 1000 Worksheet

FALL 2024

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**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)  $f(t) = \tan(t^2e^t)$

(g)  $y = \frac{x^2}{(x^3 - x)^6}$

(h)  $h(x) = \sin(\cos(\tan(x)))$