

MEMORIAL UNIVERSITY OF NEWFOUNDLAND
DEPARTMENT OF MATHEMATICS AND STATISTICS

SECTION 2.4

Math 1000 Worksheet

FALL 2022

For practice only. Not to be submitted.

1. Use the Product Rule or the Quotient Rule to find the derivative of each function.

(a) $y = (x^3 - 1)(x^4 + 3x^2 - x)$

(b) $f(x) = (x + 1)(2x + 1)(3x + 1)$

(c) $g(x) = \frac{ax^2 + b}{cx^2 - d}$ where a, b, c and d are constants

(d) $f(x) = \frac{1}{x^2 + \frac{4}{x+4}}$

2. Prove the Quotient Rule.