

# MEMORIAL UNIVERSITY OF NEWFOUNDLAND

DEPARTMENT OF MATHEMATICS AND STATISTICS

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ASSIGNMENT 1

MATH 2260

SPRING 2019

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**Due: Wednesday, May 22nd, 2019 by 1:00pm. SHOW ALL WORK.**

1. Evaluate each of the following indefinite integrals.

(a)  $\int t \cos^2(t) dt$

(b)  $\int x \sec^2(x) dx$

(c)  $\int \frac{4y + 3}{y^3 + y^2 - 8y - 12} dy$

(d)  $\int t^2 e^{\frac{1}{2} \ln(t^3+4)} dt$

(e)  $\int \frac{1}{\sqrt{7 + 12x - 4x^2}} dx$

(f)  $\int \frac{e^{3y}}{\csc(y)} dy$

(g)  $\int \frac{t + 9}{t^3 + 9t} dt$

(h)  $\int \sqrt{y} e^{\sqrt{y}} dy$