

Name:

Section: 7 8

1. Differentiate the following functions. You do not need to simplify :)

(a)  $f(x) = \cot \ln x + \ln(7x^{5/2} - 3)$ .

(b)  $s(x) = e^{7x+2} + e^{x \ln 10}$ .

(c)  $g(x) = (\sin x)^{\tan x}$

2. Evaluate the integrals

(a)  $\int \frac{3x^2}{x^3 + 2} dx$

(b)  $\int \cos x e^{\sin x} dx$