

Last Name: _____

First Name: _____

Student ID: _____

Quiz 1 (B)

Question 1. Find the following derivatives:

(a) (1 mark) $\frac{d}{dx}(\csc x)$

(b) (1 mark) $\frac{d}{dx}(\log_5 x)$

(c) (1 mark) $\frac{d}{dx}(\arctan x)$

(d) (2 marks) $\frac{d}{dx}(e^{\tan x})$

Question 2. Find the following antiderivatives:

(a) (1 mark) $\int \sec x \tan x \, dx$

(b) (1 mark) $\int \csc x \, dx$

(c) (2 marks) $\int \frac{x^2 + 1}{x^3} \, dx$

(d) (1 mark) $\int \frac{1}{x\sqrt{x^2 - 1}} \, dx$