

Last Name: _____

First Name: _____

Student ID: _____

Quiz 1 (A)

Question 1. Find the following derivatives:

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

(b) (1 mark) $\frac{d}{dx}(3^x)$

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

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

Question 2. Find the following antiderivatives:

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

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

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

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