

Last Name: \_\_\_\_\_

First Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

## Quiz 3

**Question 1.** (10 marks) Evaluate the following integrals using the Fundamental Theorem of Calculus part 2 (Evaluation theorem). Simplify your answer as much as possible.

(a)  $\int_0^1 x(\sqrt[3]{x} + \sqrt[4]{x}) dx$

(b)  $\int_{\pi/4}^{\pi/3} \sec \theta \tan \theta d\theta$

(c)  $\int_1^e \frac{x^2 + x + 1}{x} dx$