

Name: \_\_\_\_\_  
MAT 296

Quiz 3: Trigonometric Integrals  
Fall 2017

**Problem 1:** Integrate the following:

$$\int \sin^2 \theta \, d\theta$$

**Problem 2:** Integrate the following:

$$\int \frac{\tan^3 x}{\sqrt{\sec x}} \, dx$$

**Problem 3:** Integrate the following:

$$\int \sin^8(\pi x) \cos^3(\pi x) dx$$

**Problem 4:** Integrate the following:

$$\int \cot^3 \theta \csc^5 \theta d\theta$$