

Name: \_\_\_\_\_  
Spring 2018

MAT 296: HW 5  
Due: 02/21

**Problem 1:** Integrate the following:

$$\int \frac{x}{\sqrt{9-x^2}} dx$$

**Problem 2:** Integrate the following:

$$\int \frac{3}{x^2 \sqrt{x^2 + 9}} dx$$

**Problem 3:** Integrate the following:

$$\int \frac{x^2 + 5x + 5}{x + 3} dx$$

**Problem 4:** Integrate the following:

$$\int \frac{x + 4}{x^2 - 4} dx$$

**Problem 5:** Integrate the following:

$$\int \frac{x+4}{x(x-2)^2} dx$$

**Problem 6:** Integrate the following:

$$\int \frac{2x^2 - 2x + 5}{(x-1)(x^2+4)} dx$$