

MATH 111-007 QUIZ 12

**Problem 1.** Find

$$\int_{-1}^1 x e^{-x^2} dx$$

**Problem 2.** Evaluate

$$\int \sec^2(x) \tan(x) dx$$

(Hint: try splitting up the power)

**Problem 3.** Evaluate

$$\int_0^{\pi^2} \frac{\cos(\sqrt{x}) dx}{\sqrt{x}}$$

**Problem.** (Bonus)

$$\int \sec^3(x) dx$$