| Name:  |   |  |
|--------|---|--|
| MAT 29 | 6 |  |

Quiz 8: Improper Integrals Fall 2017

**Problem 1:** Integrate the following:

$$\int_0^\infty \frac{2x}{x^4 + 1} \, dx$$

**Problem 2:** Integrate the following:

$$\int_0^1 x \ln x \ dx$$

**Problem 3:** Integrate the following:

$$\int_{-\infty}^{\infty} x e^{-x^2} \, dx$$