

Name: _____

Math 232 Quiz 5

1. (10 pts) Evaluate the integral.

(a) $\int \frac{x^3 + 1}{x^2 + 1} dx$

(b) $\int \frac{3}{x^2 - x - 2} dx$

2. (10 pts) Find the limit. Use L'Hospital's Rule where appropriate.

(a) $\lim_{x \rightarrow 0} \frac{x - \ln(1 + x)}{x^2}$

(b) $\lim_{x \rightarrow \infty} x e^{-x}$

(c) $\lim_{x \rightarrow \infty} x^{\frac{1}{x}}$