

Math 262-Test#3
Los Angeles City College : Fall 2001

Dr. Kian Kaviani

Name _____

1. Evaluate the integral:

$$\int \cos^6 3x \, dx$$

2. Evaluate the integral:

$$\int 3x^3 e^{-2x} dx$$

3. Find the following limit using L Hopital's rule:

$$\lim_{x \rightarrow \infty} \frac{x^{100}}{2x^{100} + e^x}$$

4. Find the following limit using L Hopital's rule:

$$\lim_{x \rightarrow \infty} (3^x + 5^x)^{\frac{1}{x}}$$

5. Evaluate the following integral:

$$\int_{-\infty}^1 \frac{1-x}{1+x^2} dx$$