Date: February 1, 2007

| Name: |  |  |  |
|-------|--|--|--|

NO calculators!

1. Determine the value(s) of x for which the following equation holds:

$$\log_{12} x + \log_{12} 3 = 1$$

2. Compute the indefinite integral:

$$\int \frac{2x}{e^{x^2}} dx$$

3. Compute the integral:

$$\int_{-1}^{1} \pi^x dx$$

4. Compute the derivative of  $f(x) = \frac{2^x}{3^x}$ .