

**Calculus II**  
**Exam 2, Summer 2003**

Find all the integrals. Remember that definite integrals should have numerical answers. You MUST show your work.

1a.  $\int x(\ln x) dx$

1b.  $\int \frac{\ln(x^2)}{x} dx$

2.  $\int \frac{dx}{x(x-1)(x+2)}$

3.  $\int_0^2 \frac{e^x}{1+e^{2x}} dx$

4.  $\int x(x+1)^{12} dx$

5.  $\int_2^4 \frac{dx}{x(x-1)^2}$