Calculus II Exam 2, Spring 2003

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

1a.
$$\int xe^x dx$$

1b.
$$\int xe^{x^2}dx$$

$$2. \int_2^4 \frac{x dx}{x^2 - 4}$$

$$3. \int_0^{\pi/4} \tan x \ln(\cos x) dx$$

$$4. \int \frac{x}{\sqrt{1-x^2}} dx$$

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