

Your name: _____

Quiz no. 4 (1220-5 Calculus II, Fall 2006)
October 17, 2006

25 min. No symbolic calculators allowed (TI-89 and similar)!
(TI-86 or lower are allowed.)

1. (5 points)

$$\int_0^{\pi} x \cos x dx =$$

2. (5 points) Use partial fraction decomposition to compute the antiderivative:

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

3. (8 points) *Hint: You can't use partial fraction decomposition directly!*

$$\int \frac{x^3 + x^2 - x - 2}{x^3 - 2x^2} dx =$$

4. (6 points) Find the following limits:

(a)

$$\lim_{x \rightarrow +\infty} \frac{e^x}{\ln x} =$$

(b)

$$\lim_{x \rightarrow 0} \frac{x^2}{1 - \cos x} =$$