

Your name: _____

Quiz no. 6 (1100-1 Quantitative Analysis,
Spring 2008)
March 28, 2008

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

1. (12 points) Compute the following anti-derivatives:

$$\int (x^2 + \sqrt{x} - \frac{1}{x^3}) dx = \tag{1a}$$

$$\int (x^2 + 4)^5 2x dx = \tag{1b}$$

$$\int \frac{x^2}{x^3 + 1} dx = \tag{1c}$$

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2. (5 points) Approximate the area between the graph of $y = x^3$ and the x -axis for $0 \leq x \leq 3$ using 3 rectangles.

3. (8 points) Compute the following definite integrals:

$$\int_1^2 \left(x^3 - \frac{1}{x}\right) dx = \tag{2a}$$

$$\int_0^1 x e^{x^2} dx = \tag{2b}$$