Math 75B Quiz 10 (green) /20 Name: _____
Fall 2008
Ch. 19, §20-C (E), §5.1, 5.3 (S)

Please read directions carefully. Raise your hand if you are not sure what a problem is asking.
You must explain your work thoroughly and unambiguously to receive full credit on questions or parts of questions designated as ***Work and Answer****.*
No calculators or notes are allowed on this quiz.
Please note that there is a problem on the back.

Multiple Choice. (9 points) *Circle the letter of the best answer.*

1. $\sum_{i=1}^{4} i^3 =$

   (a) 119 (c) 87

   (b) 100 (d) 64

2. The area under the curve $f(x) = 3x^2$ from $x = -2$ to $x = 3$ is

   (a) $\lim_{n\to\infty} \left(\sum_{i=-2}^{3} 3x_i^2 \cdot \frac{5}{n} \right)$ (c) $\lim_{n\to\infty} \left(\sum_{i=1}^{5} 3x_n^2 \cdot \frac{1}{5} \right)$

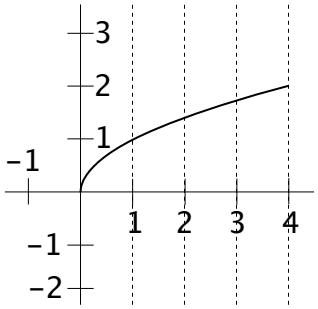
   (b) $\lim_{n\to\infty} \left(\sum_{i=1}^{n} 3x_i^2 \cdot \frac{3}{n} \right)$ (d) $\lim_{n\to\infty} \left(\sum_{i=1}^{n} 3x_i^2 \cdot \frac{5}{n} \right)$

3. $\int_{-1}^{4} 5\cos x \, dx =$

   (a) $5\sin x + C$ (c) $5\sin x \Big|_{-1}^{4}$

   (b) $5\cos x$ (d) $5\sin x \Big|_{4}^{-1}$

Graph. (5 points)
Estimate the area under the curve $f(x) = \sqrt{x}$ from $x = 0$ to $x = 3$ using 3 rectangles and right endpoints.



Area $\approx$ _____

over for more fun!

Work and Answer. (6 points) *You must show all relevant work to receive full credit.*

Evaluate the integral $\int_1^2 \frac{7}{x^4}\, dx$.