

## Open Book Quiz

Intermediate Calculus & Analytic Geometry (MATH 242 A) Date: October 15, 2013

Name:

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1. (2 pt) If  $f(x) = \frac{\ln x}{x^3}$ , find  $f'(1)$ .

2. (2 pt) Use logarithmic differentiation to find the derivative of the function.

$$y = x^{2 \sin x}$$

3. (3 pt) Use logarithmic differentiation to find the derivative of the function.

$$y = \sqrt{x}e^{x^2}(x^2 + 1)^9$$

4. (3 pt) Use logarithmic differentiation to find the derivative of the function.

$$y = x^{\ln 2x}$$