Quiz 12: Friday, April 18, 2008

1. (2 points) Complete the definition that we used this semester.

For $x > 0$, $\ln x =$ ____________________________

2. (8 points) Evaluate each of the following. Show your reasoning.

(a) $\frac{d}{dx} (x \ln x - x)$

(b) $\int \frac{1}{2x + 1} \, dx$

(c) $\frac{d}{dt} e^{t^3 + 5t}$

(d) $\int e^x \, dx$