Math 182

September 7, 2004

Show all work for credit.

1. Integrate
$$\int \frac{\sec^2(\ln(x))}{x} dx$$

2. Find the area bounded by $f(x) = \sin \frac{1}{2}x$ and $g(x) = \frac{1}{2}\sin x$ between 0 and π . (Hint: Remember to sketch a graph of the functions).