235 Group Quiz 5 | **Name** | **Section**

October 14, 2010

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Work in groups but do NOT split up problems or tasks. You must discuss each problem as a group and agree on a final answer. Hand in one quiz per group. You may use your class notebooks but no other materials or technology. Please keep your discussions quiet.

1. Use differentiation rules to find the derivative of $f(x) = \sqrt{7 + \sec^2(3x^4 + 5)}$.

2. Use implicit differentiation to prove that $\frac{d}{dx}(\ln x) = \frac{1}{x}$. You may use the fact that e^x and $\ln x$ are inverses and the fact that e^x is its own derivative.