Quiz #11

1. Determine the exact value of the following: *(Show your complete work to get full credit.)*

   a. $\tanh(\ln 2)$ [2]

   b. $\tanh^{-1}\left(\frac{1}{2}\right)$ [2]

2. Find the derivative of the following:

   a. $f(x) = \sinh^2(5x) + \text{sech}(5x)$ [2]

   b. $g(x) = \ln(\cosh 3x) + e^{\coth 2x}$ [2]

   c. $y = \cosh^{-1}(\sinh x) + \tanh^{-1}\sqrt{x}$ [2]