

**MAT 155B - FALL 12 - ASSIGNMENT 1**

**Due date: Monday, Sept. 17th<sup>1</sup>**

**1. Prove the following identity:**

$$\cosh(x + y) = \cosh x \cosh y + \sinh x \sinh y.$$

**2. Compute the derivative of the given functions:**

(a)  $y = \sinh x \ln \tanh x$ .

(b)  $y = \sinh^{-1}(\arccos x)$ .

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*URL:* <http://www.disconzi.net/Teaching/MAT155B-Fall-12/MAT155B-Fall-12.html>

<sup>1</sup>You do not need to hand this in during class. Bring it to my office at any time which is convenient for you. If you do not find me there, please slide it under the door.