Math 15 - Section 03 Homework 7 Due Monday 10/31/2011

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1. Differentiate the following functions

   (a) $y = \arctan \sqrt{\dfrac{1-x}{1+x}}$

   (b) $y = \arcsin(\sqrt{\sin\theta})$

   (c) $y = \arctan(\tanh x)$

   (d) $y = \sinh(\cosh(x))$

2. (a) Find the linear approximation of the function $f(x) = \sqrt{1-x}$ at $a = 0$.

   (b) Use part (a) to approximate the numbers $\sqrt{0.9}$ and $\sqrt{0.99}$

3. P. 162 # 14

4. P. 163 # 34 (a) and (b)

5. P. 167 # 10

6. P. 167 # 18