MATH 220: CALCULUS I
WORKSHEET 12
FEBRUARY 26, 2013

1. Find $\frac{dy}{dx}$.

   (a) $y = \tan^{-1}(\ln(x\sin(x))$

   (b) $\tan(x-y) = \dfrac{y}{1+x^2}$

   (c) $y = (x^3+1)^{\tan(x^2)}$

2. Using implicit differentiation, find $\frac{d}{dx}\left(\cos^{-1}(x)\right)$.

3. Find $\frac{dy}{dx}$ for $x^y = y^x$.