Math 220 (section AD?) **Quiz 5** **Fall 2013**

Name _____

- You have 15 minutes
- No calculators
- Show sufficient work

1. (2 points) Given $h(t) = \arctan\left(t^3\right)$, find its second derivative $h''(t)$.

2. (2 points each) Compute $\dfrac{dy}{dx}$ given each of the following equations.

   (a) $y = \sqrt{x^6 + 9}$

   (b) $y = \tan^5\left(x^3 + 2x + 8\right)$

(c) $y = \left(x^2 + 5\right)^{x^3}$

(d) $\sin\left(x^2 y^3\right) = 4x + 2y$