

Math 166: Honors Calculus II

Name: _____

Quiz 3 Feb. 10, 2000

1. Show that $\frac{d}{dx} \arctan(x) = \frac{1}{1+x^2}$

2. Let $f(x) = x^4 - x^3 + x^2 + 2$ for $x \geq 0$. Compute $(f^{-1})'(3)$ and $(f^{-1})'(14)$.

3. Integrate $\int \frac{x \arcsin(x)}{\sqrt{1-x^2}} dx$.