

Math 180
Winter, 2009

Name _____

Homework #5
Due Thursday, January 15
No late papers accepted! No excuses!

1. Use the quotient rule to find the derivative of $y = \tan x$.

2. Differentiate each of the following.

a) $y = \sqrt{x} - \frac{1}{\sqrt{x}}$

b) $g(x) = \frac{3x-1}{2x+1}$

$$\text{c) } y = \frac{x^6 - 2x^3 + 5}{x^2}$$

$$\text{d) } y = \sqrt{x}(x+1)$$

$$\text{e) } y = \frac{2x}{4+x^2}$$