10/1/2003 MA 171 Calculus A Name:_____
Dr. Lunsford Quiz 6 (20 Points Total)

I. Find the indicated derivatives. (5 points each – 15 total)

(a) $y = \dfrac{7}{\sqrt[5]{x^3}} - 6\sqrt[3]{x^7}$

$\dfrac{dy}{dx} =$

(b) $w = (r^2 - 2r)e^r$

$\dfrac{dw}{dr} =$

(c) $f(x) = \dfrac{x}{e^x + \dfrac{3}{x}}$

$f'(x) =$

II. The line l is tangent to the graph of $y = \dfrac{2t}{4+t}$ at $t = -2$ (see the graph below). Find the y intercept of the line. Show the coordinates of this intercept on the graph. Neatly show all of your work and clearly indicate your answer. (5 points)