10/15/2003 MA 171 Calculus A Name:_____
Dr. Lunsford Quiz 8 (20 Points Total)

I. Find the indicated derivatives. Do not simplify your answers. (5 points each – 15 total)

(a) $y = \sqrt[3]{\arctan(7x)}$

$\frac{dy}{dx} =$

(b) $w = \sqrt[4]{1-t}\,\arcsin(4t)$

$\frac{dw}{dt} =$

(c) $f(x) = \frac{\ln(x^2 - x + 7)}{e^{3x}}$

$f'(x) =$

II. The line l is tangent to the graph of $x^2 - xy + y^2 = 3$ at the point P (please see the graph below). Find the equation of the line. (5 points)