Math 16A (Summer 2008)
Kouba
Quiz 3

PRINT Name : _____

Exam ID # : _____

1.) (10 pts.) Use $f'(x) = \lim_{h \to 0} \frac{f(x+h) - f(x)}{h}$ to find the derivative of $f(x) = 2x^2 - 3x + 4$.

2.) (5 pts. each) Use shortcut rules (but not product or quotient rule) to find the derivatives of each function.

a.) $y = 3x + 7$

b.) $f(x) = x^4 + x^{-2} - x^{3/4}$

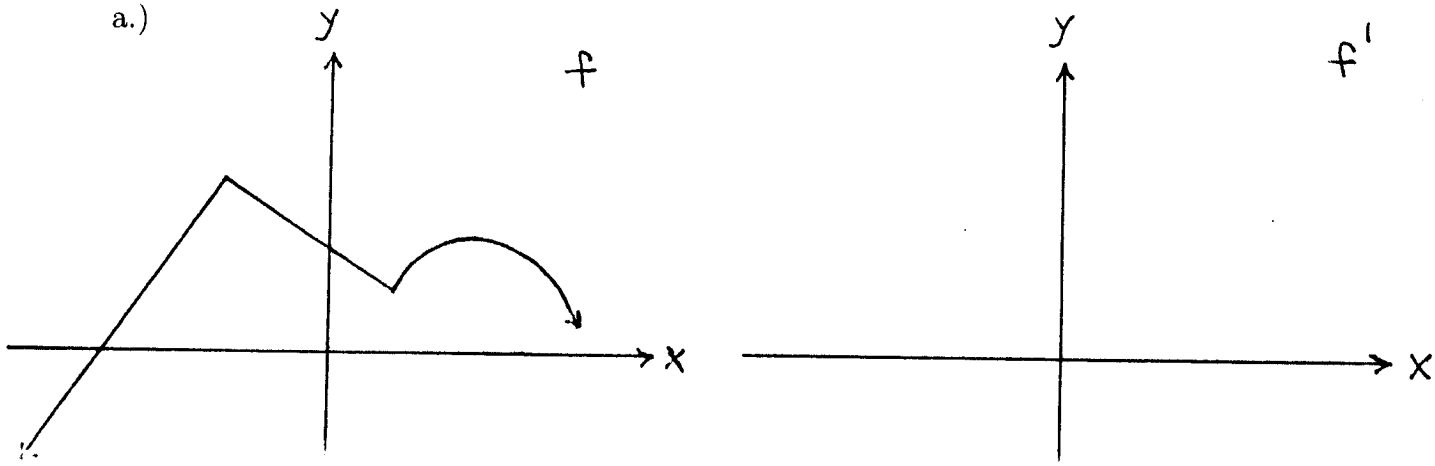
c.) $y = \frac{(x-3)^2}{x}$

d.) $g(x) = (2 - x)(3x + 7)$

3.) (6 pts.) Find an equation of the line tangent to the graph of $f(x) = x^2 - x + 1$ at the point $x = 2$.

4.) (7 pts. each) Use the graph of f to draw a rough sketch of the graph of its derivative f'.

a.)



b.)