Name _____

Homework 9
Section 3.3

1. (3ea) Determine the derivative of each function below.

   (a) $y = (5x^2 - 4)^3$

   (b) $f(x) = \sqrt{2x^2 - 6x + 1}$

2. (5) What is the slope of the line which is tangent to the graph of $f(x) = (x^2 + x)(3x - 1)^4$ where $x = 1$?

3. (5) Find $g'(-1)$ for $g(x) = \left(\dfrac{2x + 5}{4x - 5}\right)^3$.

4. (2ea) Find the quantities below using the table of values.

x	$f(x)$	$f'(x)$	$g(x)$	$g'(x)$
0	5	1/3	-2	3
1	0	-4	1/2	4
2	2	1	7	6

(a) $h'(0)$ if $h(x) = (f(x))^2$

(b) $k'(-1)$ if $k(x) = g\left(f\left(x^2\right)\right)$