

Part I (due at the beginning of class Wednesday, October 22)

Make sure you finished through Example 5 on the Chain Rule handout. Then do the first page and a half of the pink Implicit Differentiation handout you got at the end of class on Friday, stopping when you get to Example 1.

Part II: WeBWorK (due Saturday, October 25, by 11 PM)

[Click here for your WeBWorK assignment.](#) Complete the DW 19 WeBWorK assignment.

Part III: Homework Problems (due Wednesday, October 22 at the beginning of class)

1. Given $g(5) = -3$, $g'(5) = 6$, $h(5) = 3$, and $h'(5) = -2$, find $f'(5)$ for each of the following, if possible. If not possible, explain what additional information you need in order to be able to find the requested value.
 - (a) $f(x) = g(x)h(x)$
 - (b) $f(x) = g(h(x))$
 - (c) $f(x) = \frac{h(x)}{g(x)}$
 - (d) $f(x) = h(g(x))$
 - (e) $f(x) = (g(x))^3$
 - (f) $f(x) = \sin(g(x))$