MATH-241 Calculus I
Worksheet 04

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Last name: _____
First name: _____
Section: _____

Question:	1	2	Total
Points:	10	10	20
Score:			

Instructions: You must answer all the questions below and give your solutions to the TA at the end of the recitation. Write your solutions on a different sheet of paper. No late worksheet will be accepted.

Question 1 **(10 pts)**

Suppose that $f(0) = 2$, $g(2) = 5$, $h(0) = -1$, $f'(0) = -3$, $g'(2) = 4$, and $h'(0) = 4$.

(a) (5 points) If $F = g \circ f$, then find the value of $F'(0)$.

(b) (5 points) If $H = 2f/h$, then find the value of $F'(0)$.

Question 2 **(10 pts)**

A person would like to build a rectangular wall and paint it. The material available only garentees that the wall will have a perimeter of 200 foot. The cost of the painting is $10\$/ft^2$. What is the dimensions that will maximize his cost?