

Bonus Question 4

Suppose that $f(x) = xg(x)$ for some function g which is continuous at 0. Prove that the derivative of $f(x)$ exists at 0, and find $f'(0)$ in terms of g .

Note: Since we don't know that $g'(0)$ exists, one can't simply use product rule.

Due: Wednesday August 1st.

Worth: 0.5 % bonus