

MATH 15100 HOMEWORK

DUE MONDAY, NOVEMBER 5, 2018

1. PROBLEM 1

Prove the following theorem.

Theorem 1.1. *Suppose f , g and h are differentiable functions such that*

- (1) $f(x) \leq g(x) \leq h(x)$, for all x ,
- (2) $f(c) = g(c) = h(c)$, and
- (3) $f'(c) = h'(c)$,

where c is some point. Then $f'(c) = g'(c) = h'(c)$.

Hint: Squeeze Theorem