

Math 10850, Honors Calculus 1

Quiz 9, Thursday December 5

Name:

1. Give a clear and complete statement of the Mean Value Theorem.

2. This part concerns the function $f : \mathbb{R} \rightarrow \mathbb{R}$ given by $f(x) = 2x^3 + 3x^2 + 6x - 12$. Say that a real number c is a *real root* of f if $f(c) = 0$.
 - (a) Show that f does not have two (or more) real roots.

 - (b) Show that f has *exactly* one real root.