

235 Group Quiz 6

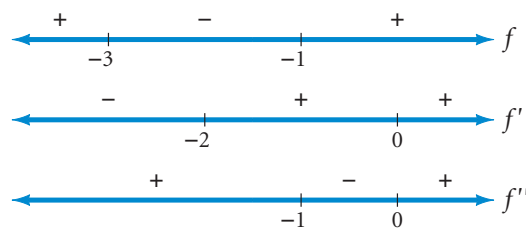
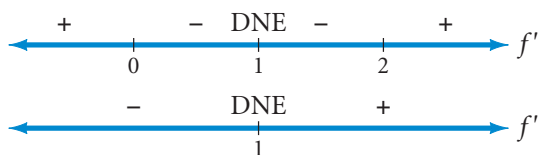
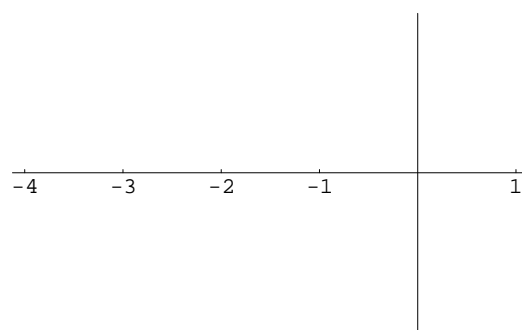
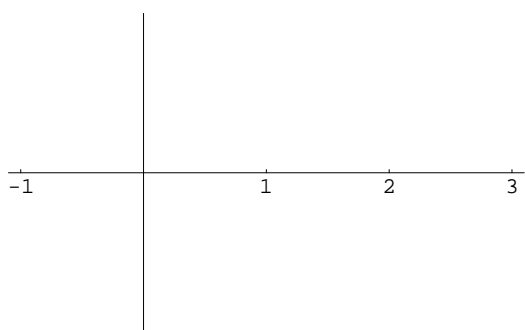
October 21, 2010

Name _____

Section _____

Work in groups but do NOT split up problems or tasks. You must discuss each problem as a group and agree on a final answer. Hand in one quiz per group. You may use your class notebooks but no other materials or technology. Please keep your discussions quiet.

- On both the left and the right, sketch a careful graph of a function f with the given number lines. Make sure everything lines up! Mark all roots, extrema, and inflection points with dots.



- Suppose there exists some $\delta > 0$ such that $f(c) \geq f(x)$ for all $x \in (c - \delta, c + \delta)$ and that f is continuous and differentiable everywhere. Use the definition of derivative to prove that $f'_+(c) \leq 0$. Be sure that your argument is clear.