

3450:221 Calculus, Kreider

Name: _____

Quiz 11, section 4.1

1. (3 pts) Find the critical points of $f(x) = x^3 - 3x^2 - 9x + 174$

2. (5 pts) Find the absolute maximum and minimum of $f(x) = xe^{-x}$ on the interval $[0, 2]$

3. (2 pts) Sketch the graph of a continuous function on the interval $[1, 5]$ that has its absolute maximum at $x = 3$, its absolute minimum at $x = 1$ and a local minimum at $x = 4$.