## MAT 136 (Calculus I) Prof. Swift

In-class worksheet: Critical points and Global Extrema

Consider the function $f(x)=\frac{1}{3} x^{3}+x^{2}-3 x+4$, with the domain $[0,3]$.

1. Find all of the critical points of $f$ in the interval $0<x<3$.
2. Evaluate $f$ at its critical point(s) and the endpoints of its domain.
3. What are the global maximum and minimum values of $f$ ?
