MAT 136 (Calculus I) Prof. Swift In-class worksheet: Critical points and Global Extrema

Consider the function $f(x) = \frac{1}{3}x^3 + x^2 - 3x + 4$, 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?