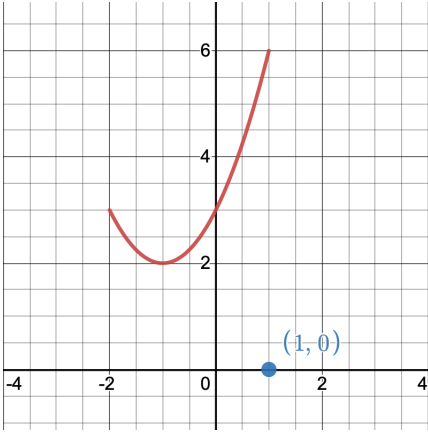
Work on these with your partner(s) at the board

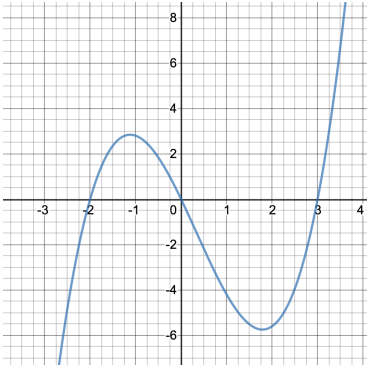
1. Consider the portion of the parabola

$$y = x^2 + 2x + 3 \text{ with } -2 \leq x \leq 1$$

Find the point on this curve that is closest to the point $(1, 0)$, and the point on the curve that is farthest from $(1, 0)$



2. The graph of $y = f'(x)$ is given below



$y = f'(x)$

This is NOT $y = f(x)$!

(a) Where does f have critical points?

(b) On which intervals is f increasing? decreasing?

(c) What are the x-values where f achieves its local min? local max?

(d) Where does f' have critical points?

(e) Where is f' increasing? decreasing?