Quiz #7, 10/14
Math 157 (Calculus II), Fall 2025

Problem 1 is worth 5 points, and Problem 2 is worth 5 points, for a total of 10 points. Remember to *show your work* on all problems!

1. Consider the parametrized curve defined by $x = t - 1$ and $y = t^3 - 2t$.

   (a) Compute the points (x, y) on the curve when $t = -2, -1, 0, 1, 2$.
   Use these points to sketch a graph of the curve.

   (b) Eliminate the variable t to write the curve as $y = f(x)$.

2. Consider the parametrized curve defined by $x = t^3 + t$ and $y = t^2 - 4t - 1$.

   (a) Find the slope of the tangent to this curve at the point $(x, y) = (0, -1)$.

   (b) At what point (x, y) on this curve is the tangent horizontal?