Quiz #8, 3/24
Math 157 (Calculus II), Spring 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 polar curve $r = 1 + \cos(\theta)$ for $0 \leq \theta \leq 2\pi$.

   (a) First, make a chart or a plot of r as a function of θ.

   (b) Then, using the chart/plot in part (a) as a guide, sketch the graph of this polar curve.

2. Consider the polar curve $r = \theta(\pi - \theta)$ for $0 \leq \theta \leq \pi$. Compute the area inside of this curve.