Quiz #8, 3/23
Math 157 (Calculus II), Spring 2023

Problem 1 is worth 5 points (2.5 points each part), 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, plot r as a function of θ in *Cartesian coordinates*.

   (b) Then, use the information you got in part (a) to 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.