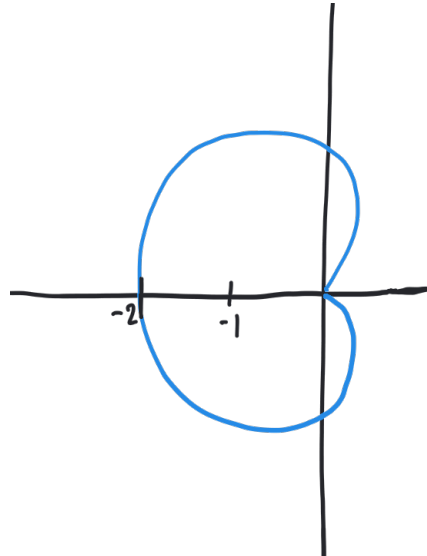**Problem 1.** Compute the area enclosed by the graph $r = 1 - \cos\theta$ shown below. *Hint:* $\cos^2\theta = \frac{\cos 2\theta + 1}{2}$.

Problem 2. Sketch the graph $r = \theta$ for $0 \le \theta \le 2\pi$, and find the area bounded by the curve and the first quadrant.