

3. (3 points) Convert $r = 5 \csc(\theta)$ to rectangular coordinates.
4. (5 points) Use an integral to find the area of the region that is inside both the circles $r = \cos(\theta)$ and $r = \cos(\theta - \pi/3)$.
5. (4 points) Sketch the graph of $r = e^\theta$ for $0 \leq \theta \leq 2\pi$ and then find the length of this polar curve.