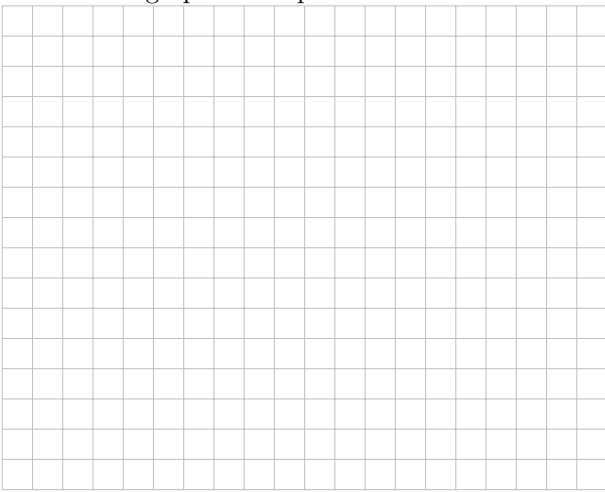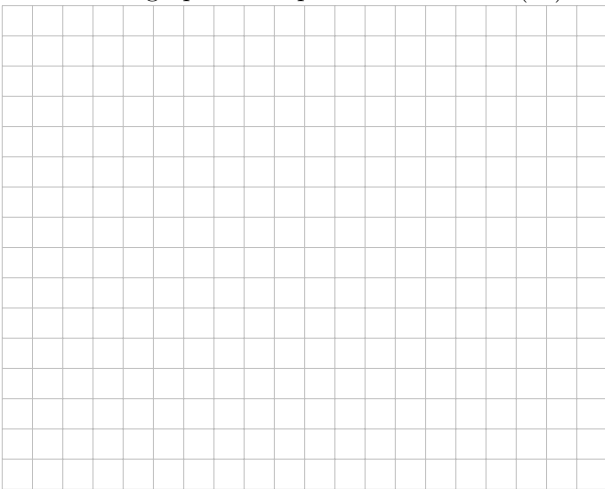**1.** Sketch a graph of the polar curve $r = 1 - \cos\theta$.

2. Sketch a graph of the polar curve $r = \sin(3\theta)$.

3. Find the slope of the line tangent to the curve $r = \sin(3\theta)$ at the given value of θ.

a) $\theta = \frac{\pi}{2}$

b) $\theta = \frac{\pi}{6}$