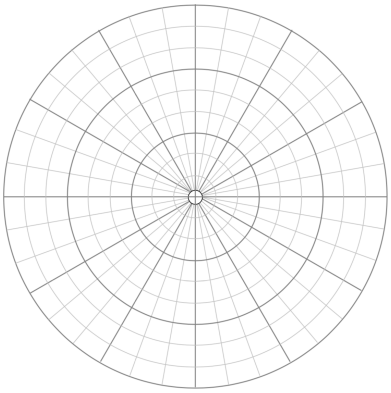
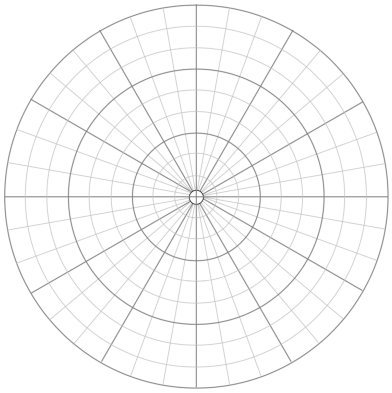
1. Plot the point with the given polar coordinates

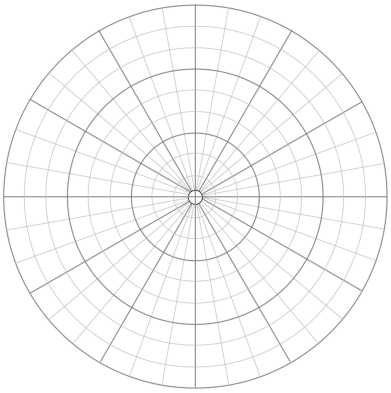
(a) $\left(3, \frac{11\pi}{6}\right)$



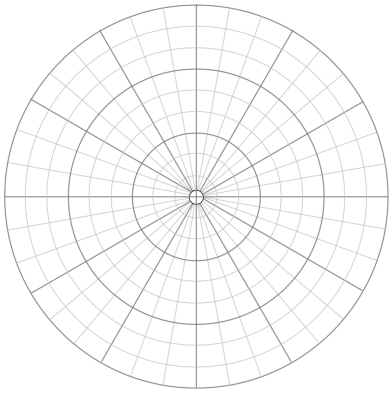
(c) $\left(-3, \frac{11\pi}{6}\right)$



(b) $\left(1, -\frac{5\pi}{12}\right)$



(d) $\left(-1, -\frac{5\pi}{12}\right)$



2. Convert each pair of polar coordinates to rectangular coordinates

(a) $\left(2, \frac{5\pi}{6}\right)$

(b) $\left(1, \frac{3\pi}{2}\right)$

3. Convert each pair of rectangular coordinates to polar coordinates

(a) $\left(\frac{3\sqrt{3}}{2}, \frac{3}{2}\right)$

(b) $\left(-\sqrt{2}, \sqrt{2}\right)$

4. Find the distance between the points $\left(2, \frac{\pi}{3}\right)$ ad $\left(2, \frac{11\pi}{6}\right)$

5. Match each equation with its corresponding graph

(a) $r = 4 + 4\cos\theta$

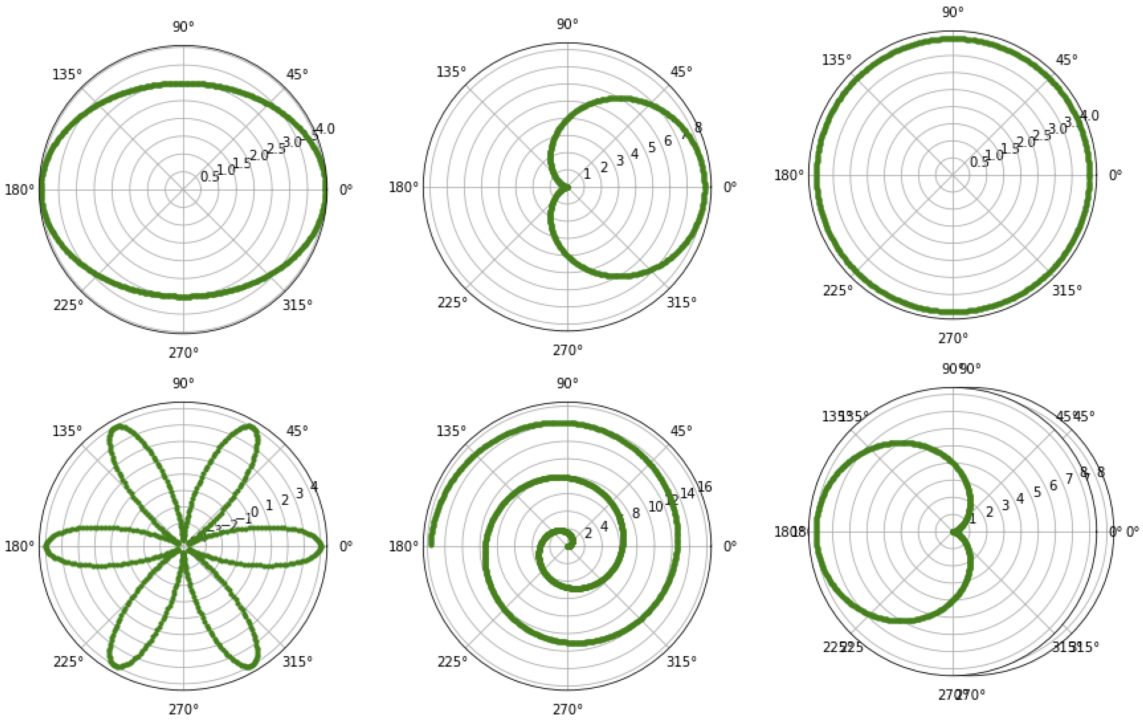
(b) $r = 4 - 4\cos\theta$

(c) $r = \theta$ for $0 \le \theta \le 5\pi$

(d) $r = \dfrac{12}{\sqrt{(3\cos\theta)^2 + (4\sin\theta)^2}}$

(e) $r = 4$

(f) $r = 4 + \cos(6\theta)$



6. Convert each equation from polar to rectangular form

(a) $\tan\theta = 2$

(b) $r = 4\cos\theta - 4\sin\theta$

(c) $r = -2\cos\theta$

(d) $r = 2\cos\theta + 2\sin\theta$

7. Convert each equation from rectangular to polar form

(a) $(x-1)^2 + (y+1)^2 = 2$

(b) $y = x^2$

(c) $y = \dfrac{x^2}{5}$

(d) $x = y^2$