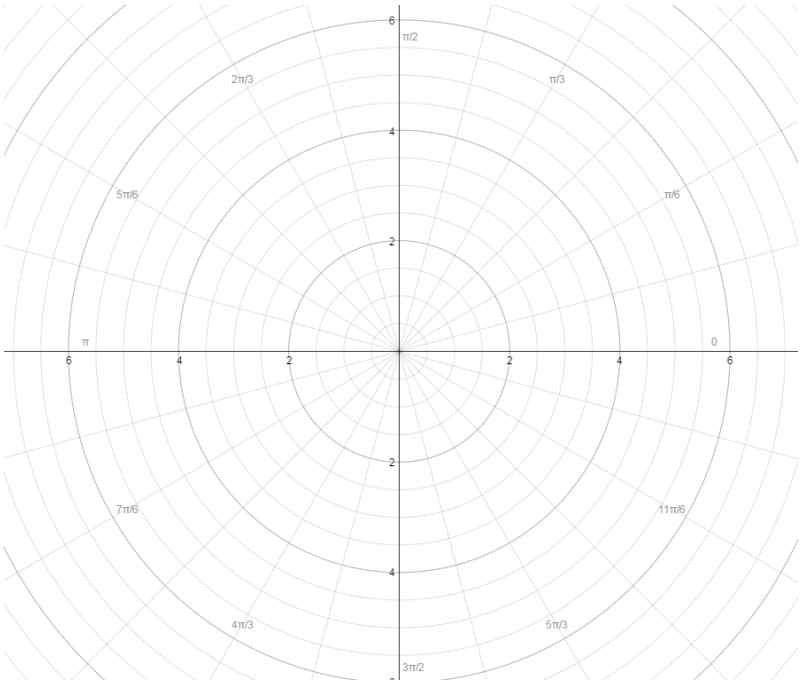
Polar Curves Intro Name(s):

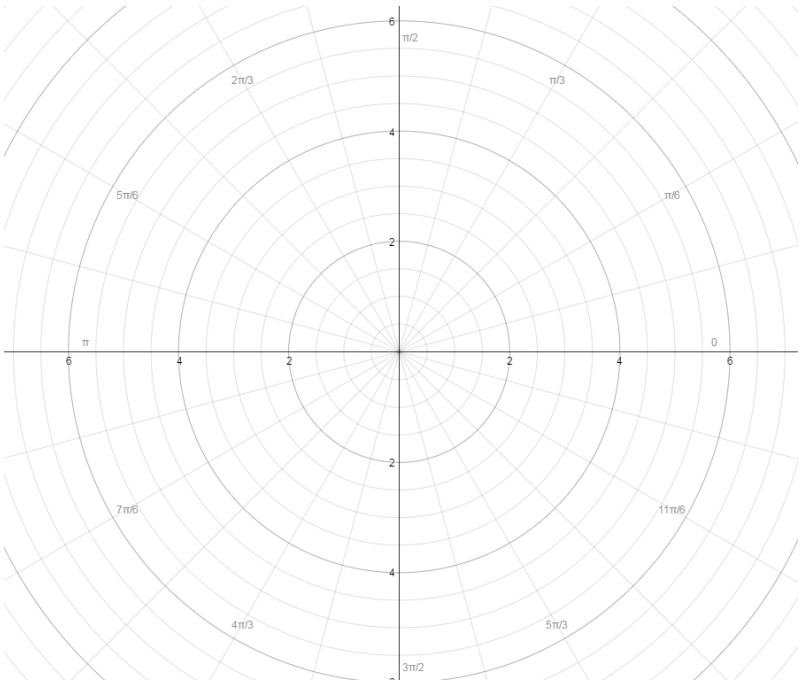
In 10.3-10.4 we're going to discuss **polar curves**. If P is any point on the plane, then r is the distance from the origin to P and θ is the angle between the polar axis and the line OP. The point P is represented by the ordered pair (r, θ). Turn in for 4 board work points.

1. Plot the following polar coordinates. Label each one.

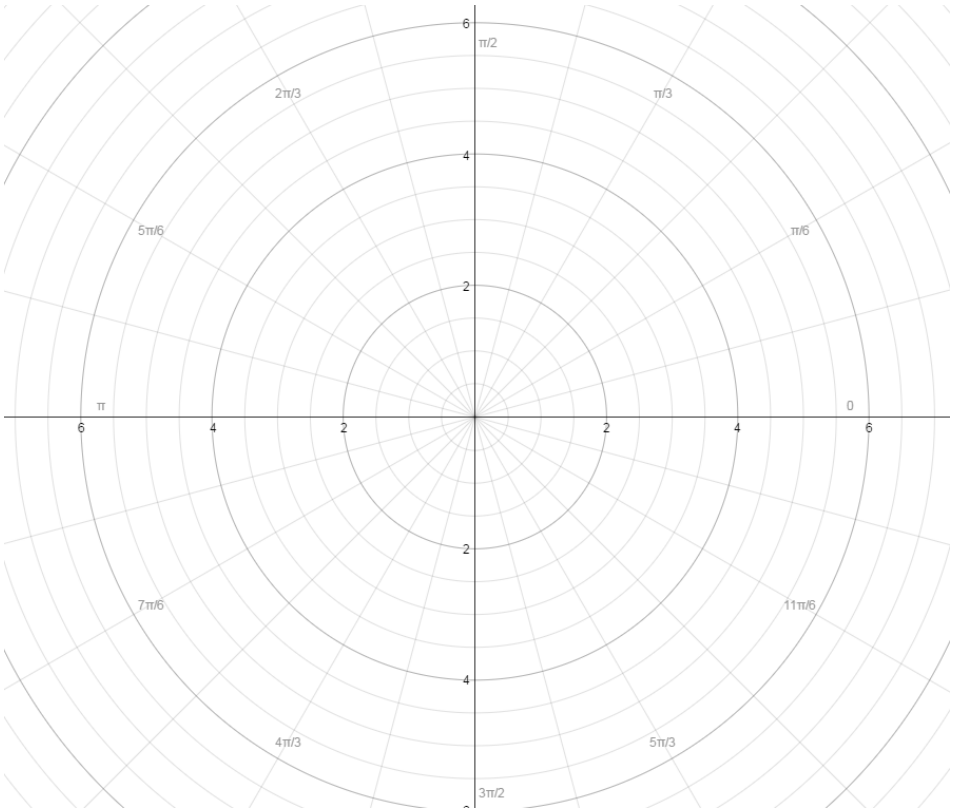
   $\left(1, \frac{5\pi}{4}\right)$ $(2, 3\pi)$ $\left(2, -\frac{2\pi}{3}\right)$ $\left(-3, \frac{3\pi}{4}\right)$



2. Sketch the curve with polar equation $r = 2$



3. Sketch the curve with polar equation $r = 1 + \sin\theta$



4. Sketch the curve with polar equation $r = \cos(2\theta)$