Sec 10.3 (Day 1): Polar Functions

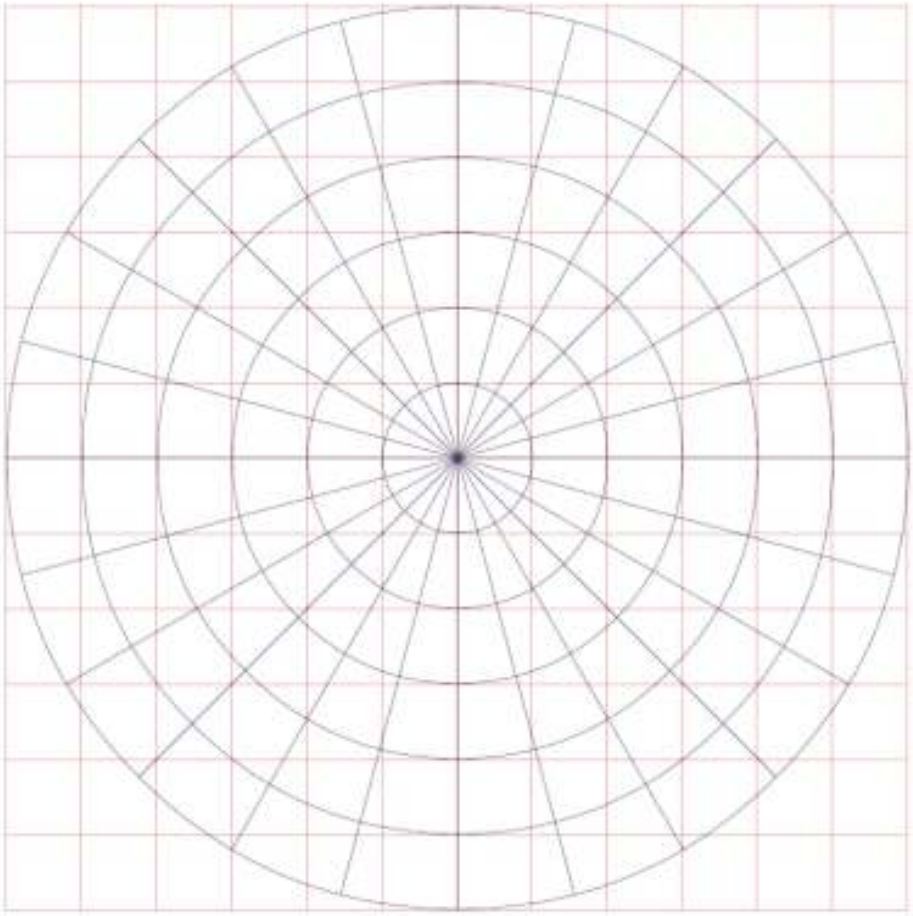
Here is a polar grid. Plot the points indicated.

Polar Point:

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

Recatangular Point:

$$(3, -3)$$

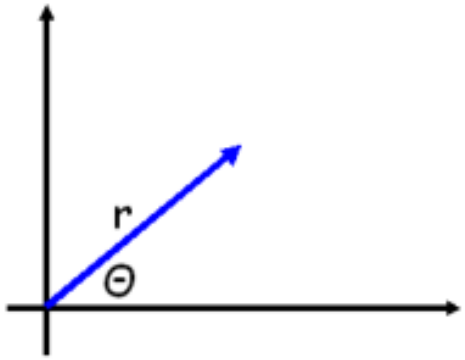


We normally graph in rectangular mode with a point being (x, y). Polar mode is a way to graph given a radius lenght and an angle of rotation. The points are in the form (r,θ)

Let's find a relationship between the two graphing systems.

$x =$ _____ $r =$ _____

$y =$ _____ $\theta =$ _____



Use the conversions above to change from polar to rectangular or vise versa.

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

$(3,-3)$

Convert the following equations to polar form.

$x = 6$

$x^2 + y^2 = 25$

Convert the following equations to rectangular form.

$r\sin\theta = 3$

$r = 2\cos\theta$

$\theta = \frac{2\pi}{3}$