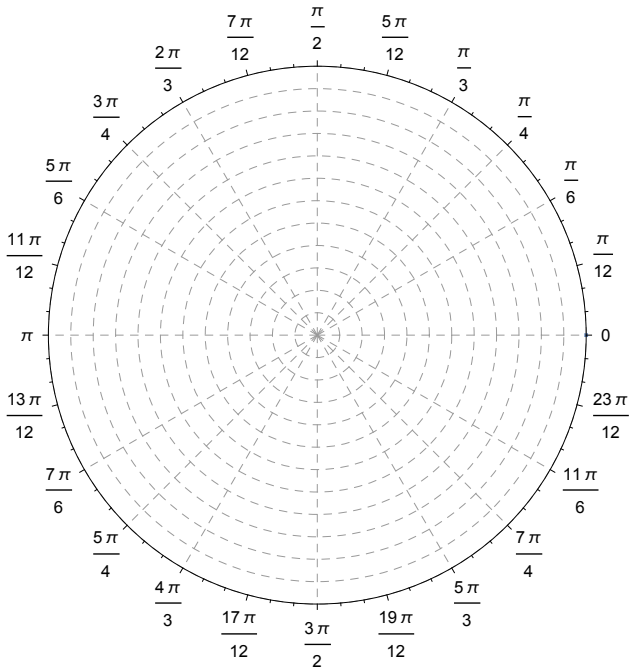


# 10.5 Area and Arc Length in Polar Coordinates

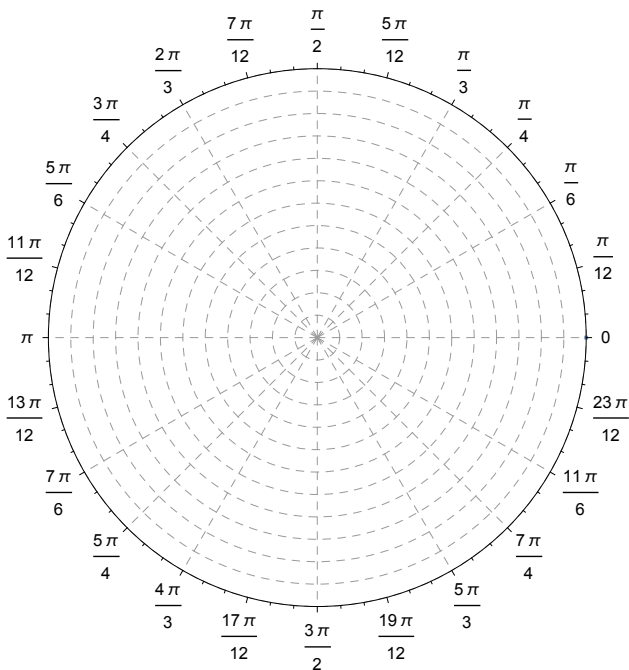
Name:

Date: August 5, 2015

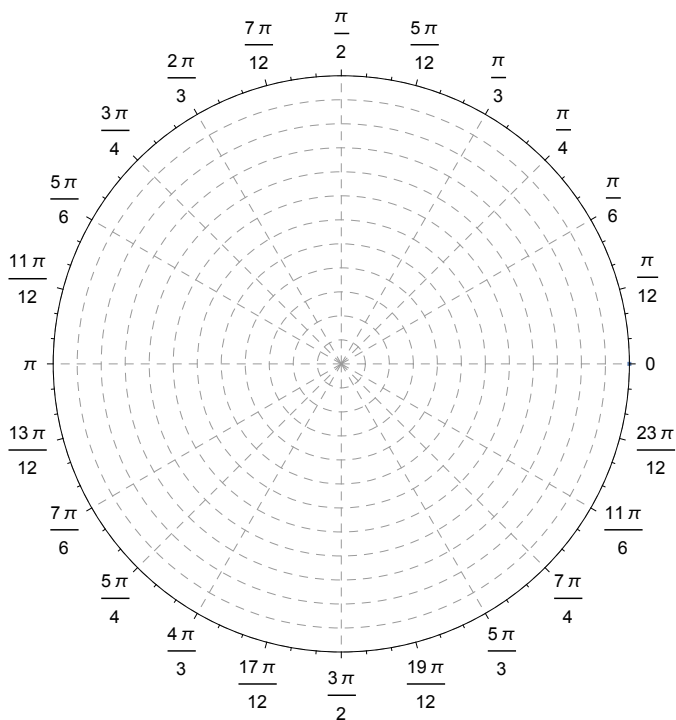
**P 5.** Find the area of the interior of  $r = 6 \sin \theta$ .



**P 8.** Find the area of one petal of  $r = 4 \sin 3\theta$ .



**P 58.** Find the arc length of  $r = \sec \theta$  over the interval  $0 \leq \theta \leq \pi/3$ .



**P 63.** Find the area of the surface formed by revolving the graph of  $r = 6 \cos \theta$  defined on the interval  $0 \leq \theta \leq \pi/2$  about the polar axis.

