

# Polar Plots

Limacons $r = b \pm a \cos(\theta)$ $r = b \pm a \sin(\theta)$	
Cardiods $r = a(1 \pm \cos(\theta))$ $r = a(1 \pm \sin(\theta))$	
Rose Curves $r = a \cos(n\theta)$ $r = a \sin(n\theta)$	
number of petals $n$ if $n$ is odd $2n$ if $n$ is even	
Lemniscates $r^2 = a^2 \cos(2\theta)$ $r^2 = a^2 \sin(2\theta)$	
Sprial of Arcimedes $r = a\theta$	
Line $\theta = \text{constant}$	Circle $r = \text{constant}$
Circle $r = a \sin(\theta)$	Circle $r = a \cos(\theta)$