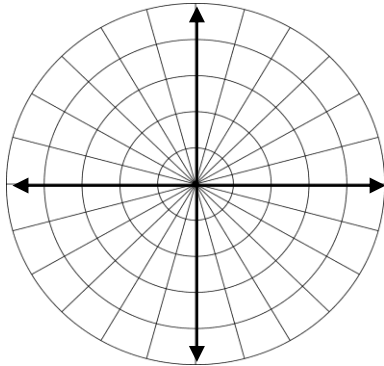


Homework on Polar Graphing Day 1
Lines, Circles, Roses, and Lemniscates

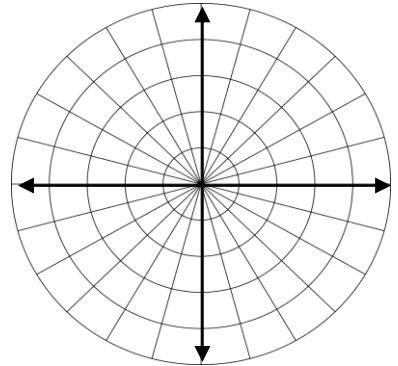
name _____

Sketch a graph of the following polar equations. I will be looking for correct general shape and x and y intercepts.

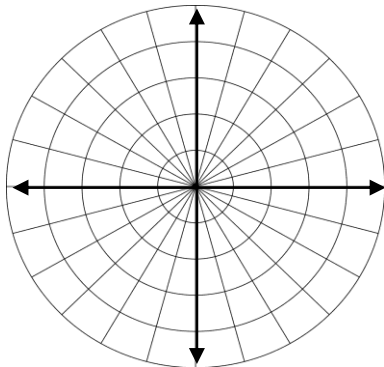
1. $\theta = \frac{\pi}{3}$



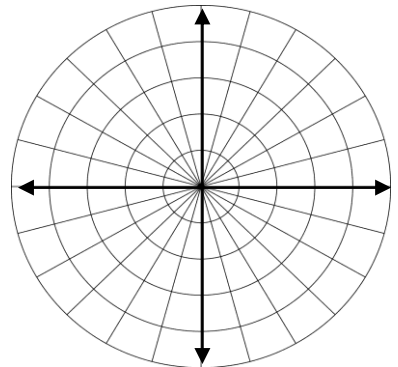
2. $r = 4$



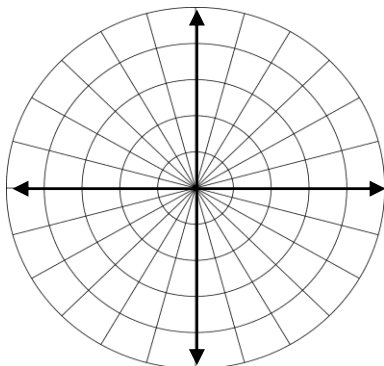
3. $r = 3\sin\theta$



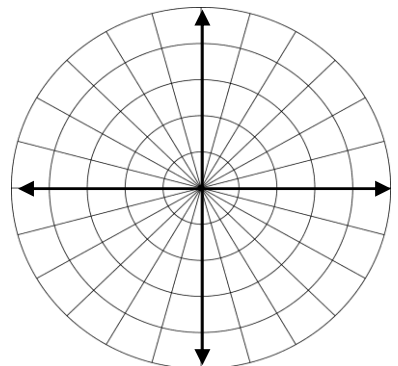
4. $r = -5\cos\theta$



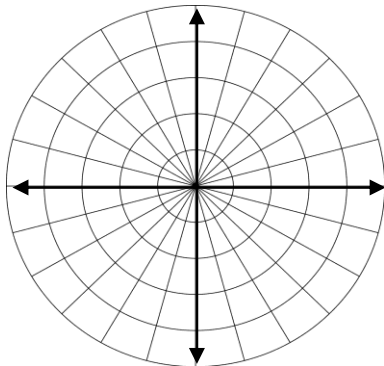
5. $r = -3\sin 4\theta$



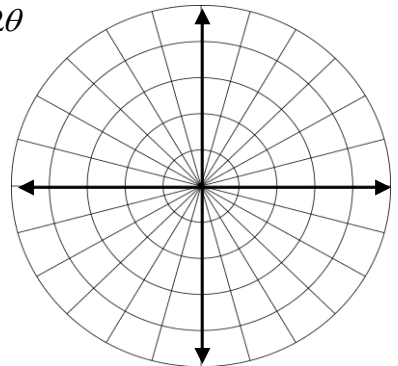
6. $r = 5\cos 5\theta$



7. $r^2 = 25\cos 2\theta$



8. $r^2 = -4\sin 2\theta$



9. Match the equations to the graphs above. List the number of petals and the length.

$3\sin 5\theta$ Graph _____ # Petals _____ Petal Length _____

$4\sin 2\theta$ Graph _____ # Petals _____ Petal Length _____

$3\cos 5\theta$ Graph _____ # Petals _____ Petal Length _____

$3\sin 7\theta$ Graph _____ # Petals _____ Petal Length _____

$4\cos 2\theta$ Graph _____ # Petals _____ Petal Length _____

