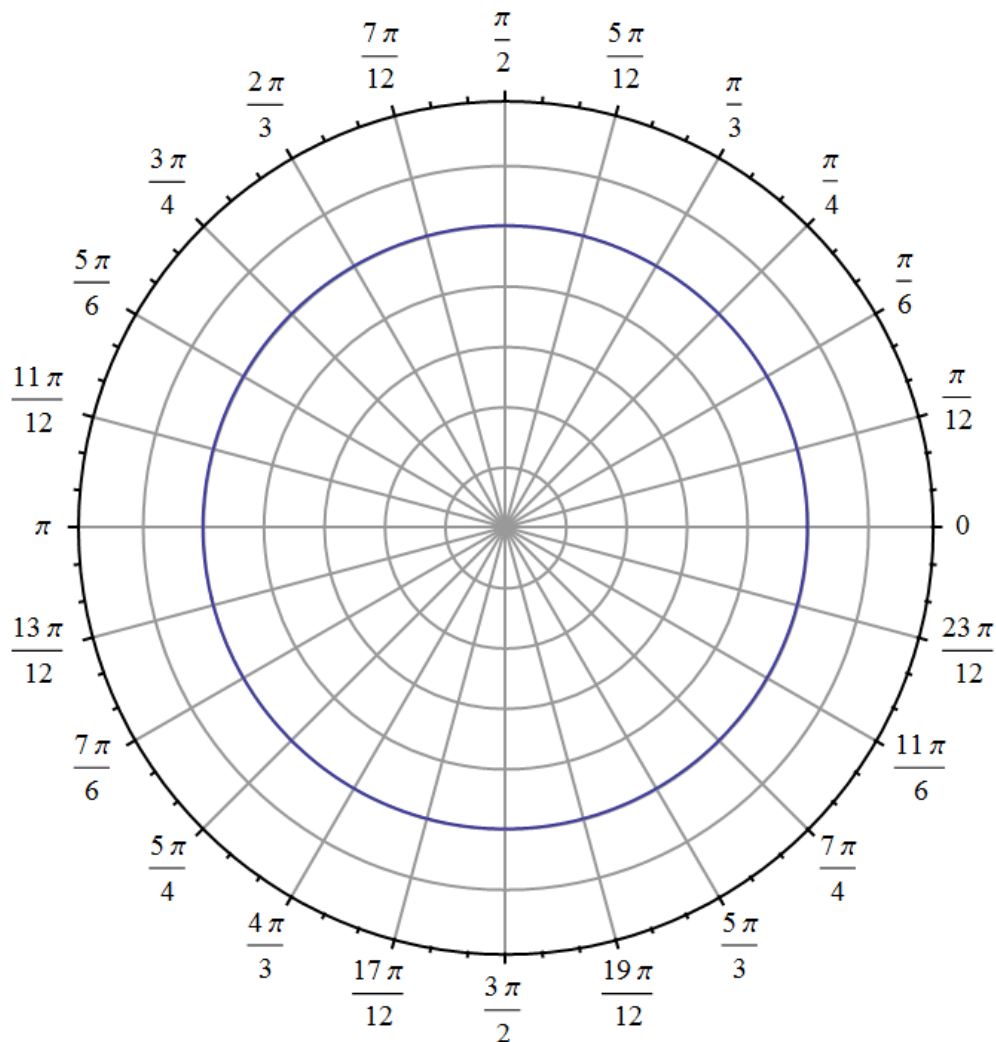


Welcome to POLAR GRAPHING!!!! It's super easy. Just plug in angular measures and plot the result on the radius the angle is on. A positive result goes "forward" on the radius and a negative result goes "backward" on the radius

POLAR graphs are written in the form $r(\theta) = \sin(\theta)$. It doesn't have to be sine, but I'm using it here.

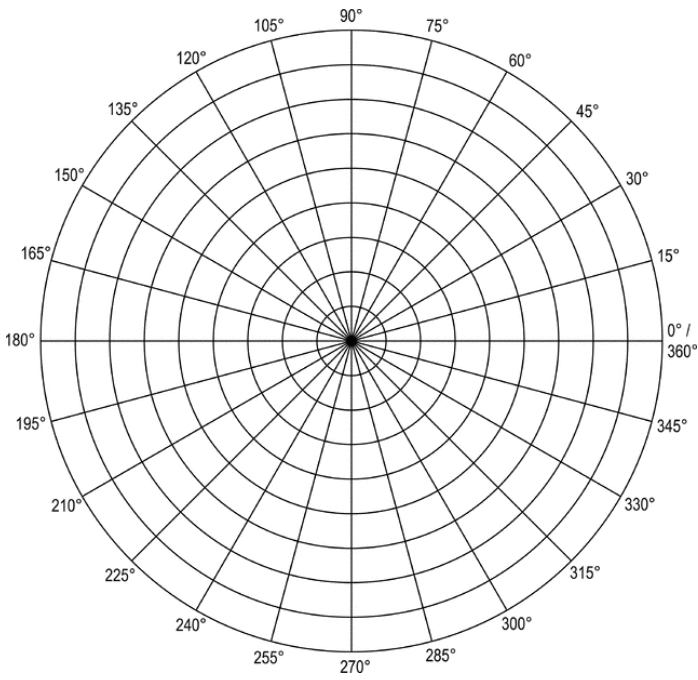
For quality of life, I've considered each ring to .25 units. You can check your solutions by changing your graphing calc to POLAR mode and graphing it there.

For your FIRST POLAR GRAPH, try graphing $r(\theta) = 2\sin(\theta)$ above. Enjoy. Don't forget to check it on your graphing calc!

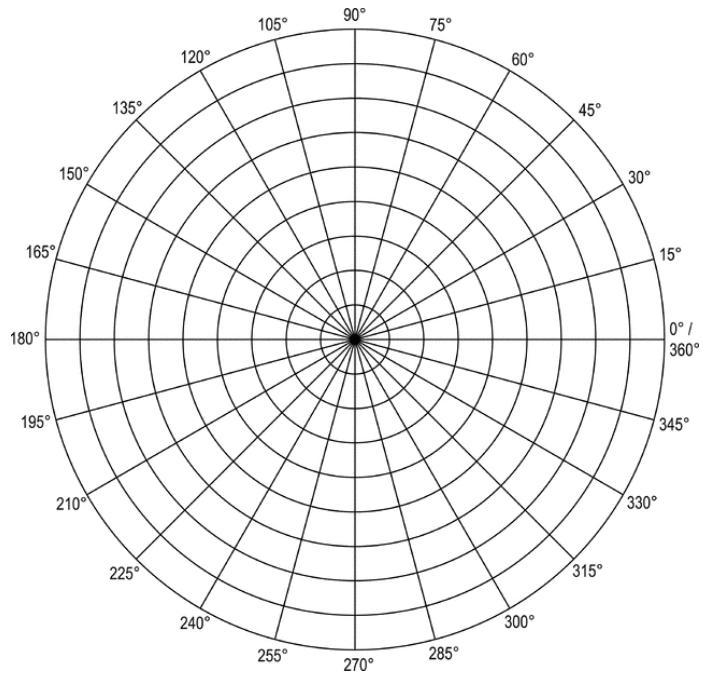


Now try $r(\theta) = 2\cos(\theta)$. Observe the difference between this graph and the one you completed on the other side of this paper. Polar graphs can be done in radians as well. For quality of life reasons, call each ring .5 this time. Then check your graph using your graphing calculator.

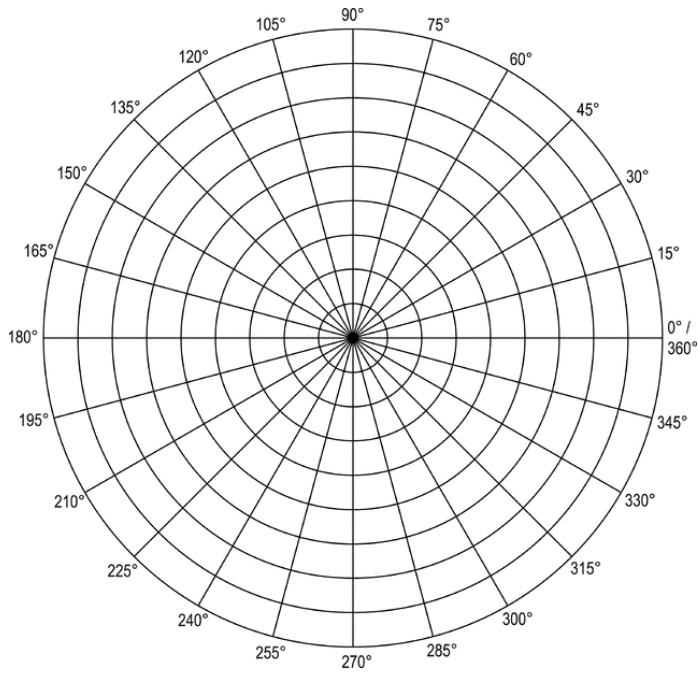
Once you have completed both graphs and have checked your solutions, move on the exercises that follow.



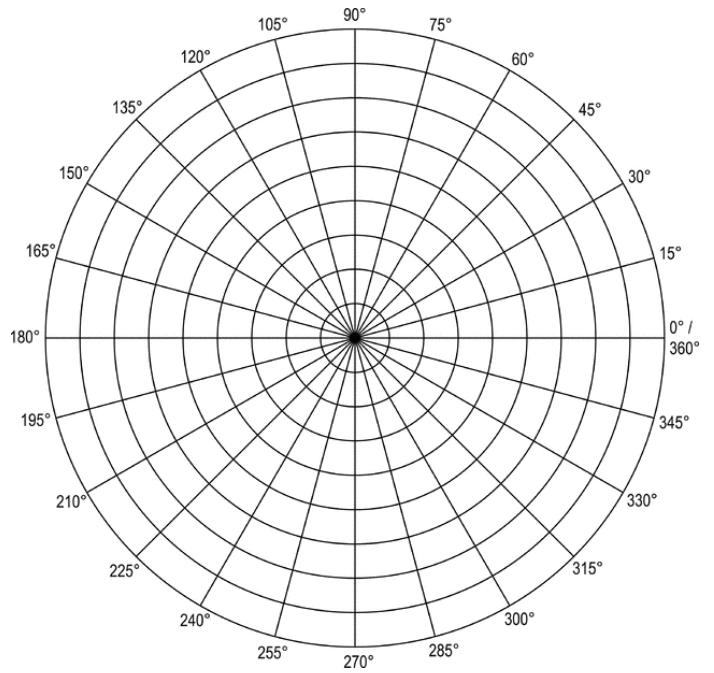
$$r(\theta) = 2\sin(\theta) - 1$$



$$r(\theta) = 2\sin(\theta) - 2$$



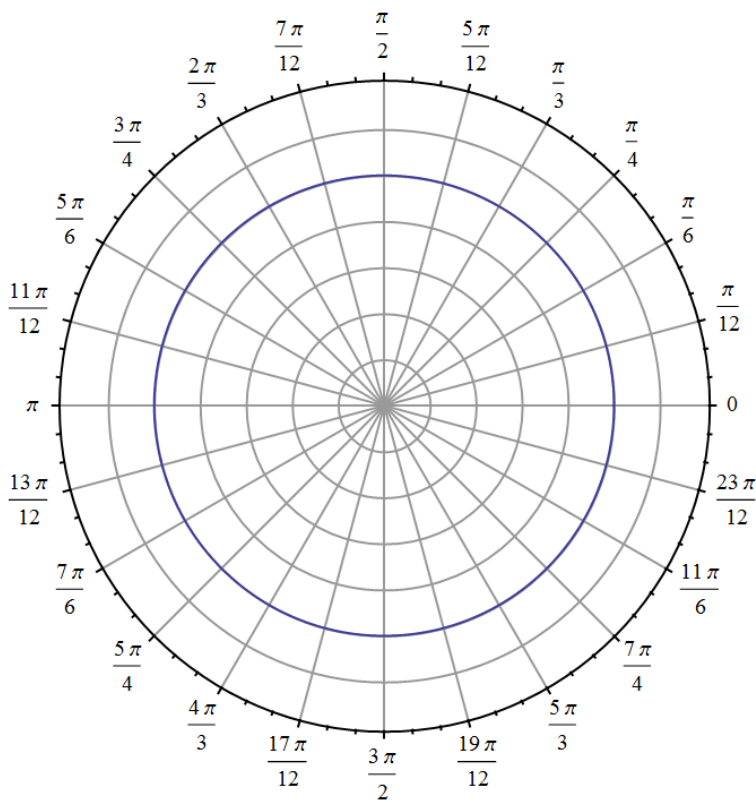
$$r(\theta) = -\cos(\theta) + 1$$



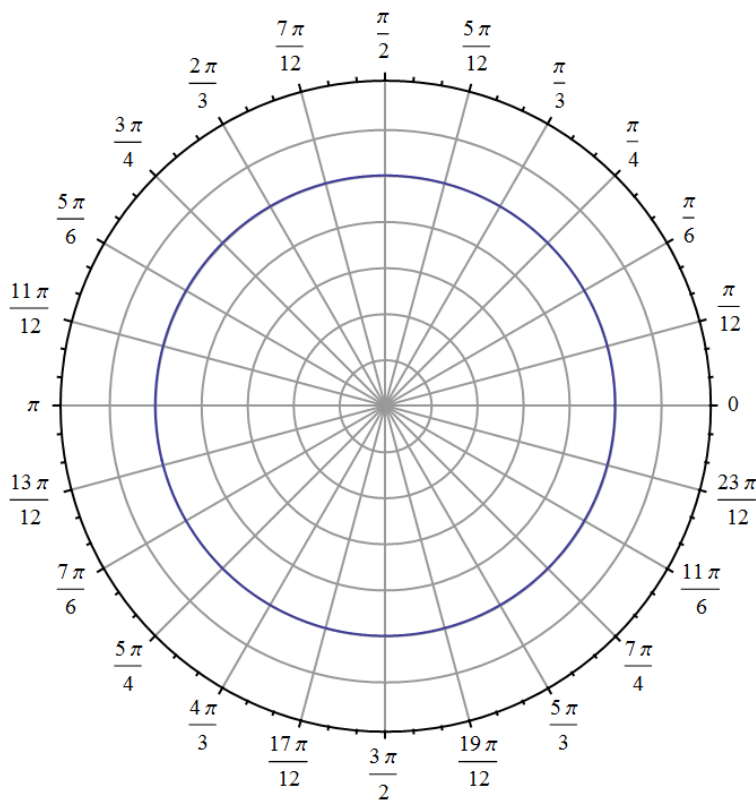
$$r(\theta) = \theta$$

Precalc

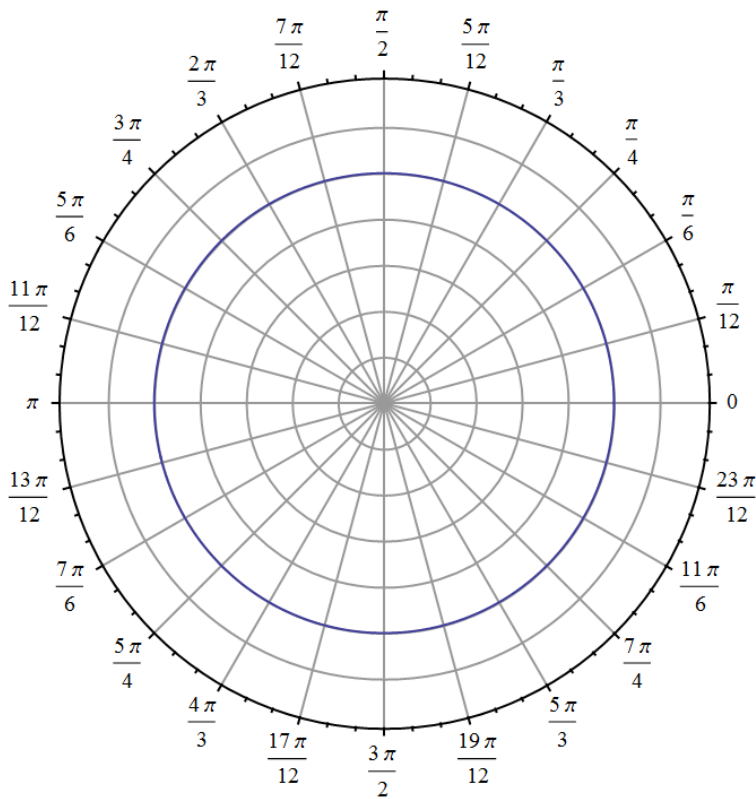
My FIRST Polar Graphs <3



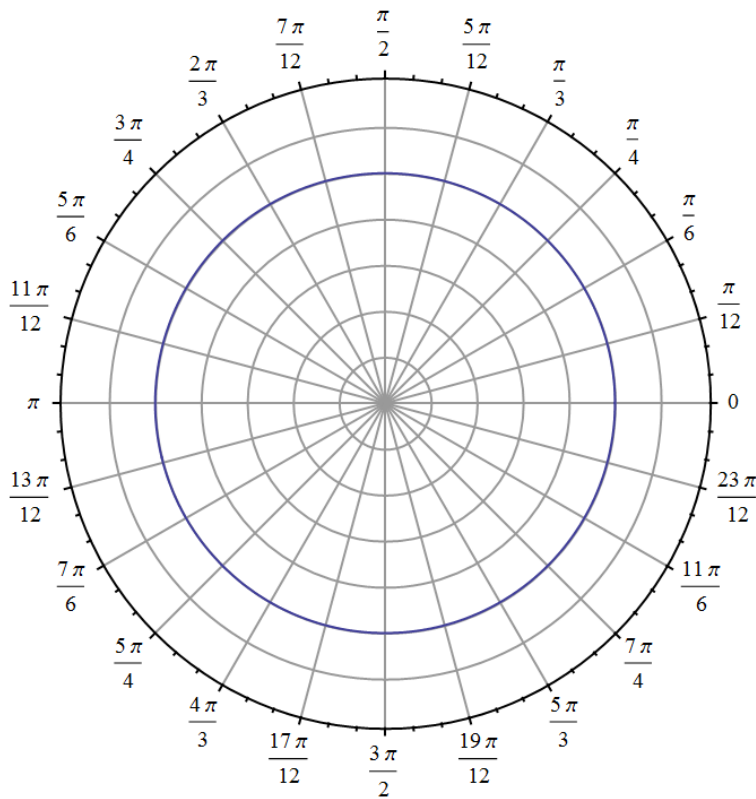
$$r(\theta) = 3$$



$$r(\theta) = 2\sin(\theta) + 3$$



$$r(\theta) = \sin(\theta)\cos(\theta)$$



$$r(\theta) = \cos(2\theta)$$