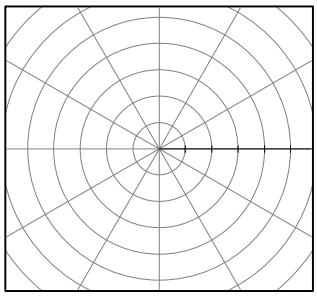
Pre-Calculus Name _____

HW day 1 – Circles and Cardioids

Determine the equation and then draw a graph.

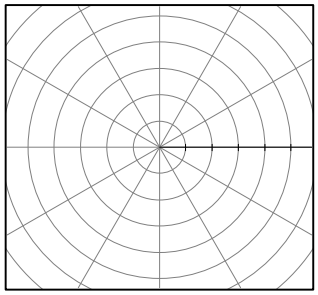
1) Circle with radius 4; center at origin:

_____



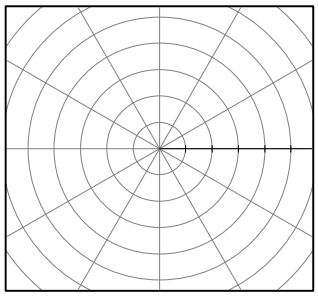
2) Circle with radius 5; one endpoint of diameter lies on origin; lying on the positive x-axis:

_____



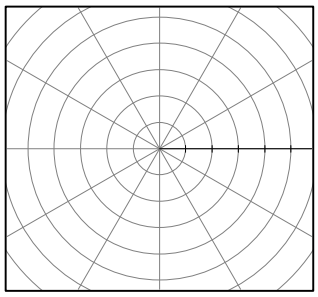
3) Circle with radius 3; one endpoint of diameter lies on origin; lying on the negative x-axis:

_____



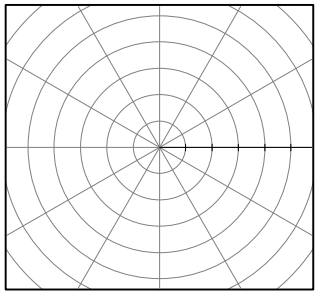
4) Circle with radius 2; one endpoint of diameter lies on origin; lying on the negative y-axis:

_____



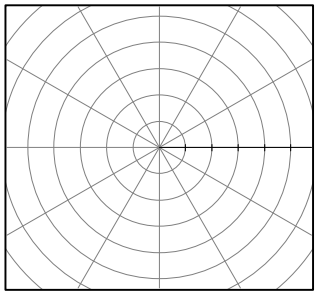
5) Line with positive slope (passes through 1st and 3rd quadrant):

_____



6) Line with negative slope (passes through 2nd and 4th quadrant):

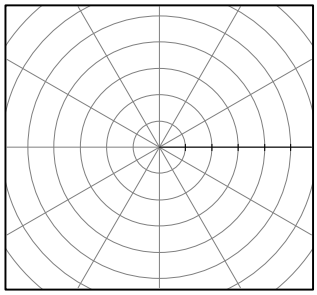
_____



7) Cardioid with x-intercepts (4, 0°) and (0, 180°); y-intercepts +/- 2:

_____

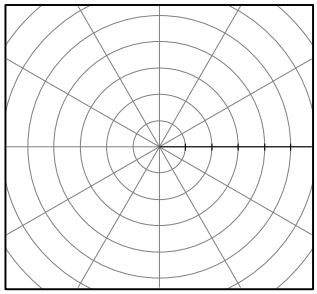
Give the y-intercepts in polar form: _____



8) Cardioid with x-intercepts (0,0°) and (8, 180°); y-intercepts +/- 4:

_____

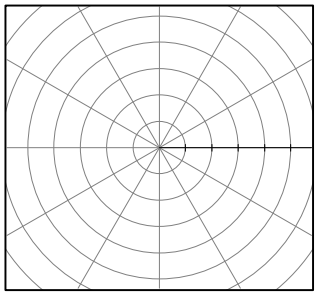
Give the y-intercepts in polar form: _____



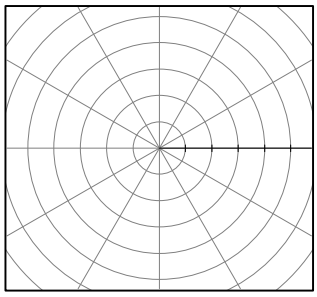
9) Cardioid with y-intercepts (6, 90°) and (0, 270°); x-intercepts +/- 3:

_____

Give the x-intercepts in polar form: _____



10) Cardioid with y-intercepts (0, 90°) and (4, 270°); x-intercepts +/- 2:

_____

Give the x-intercepts in polar form: _____