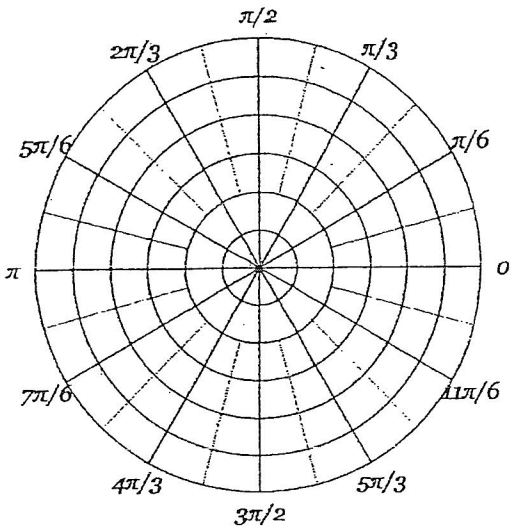
Ex. Make a table, tell what type of graph it is, and sketch the graph.

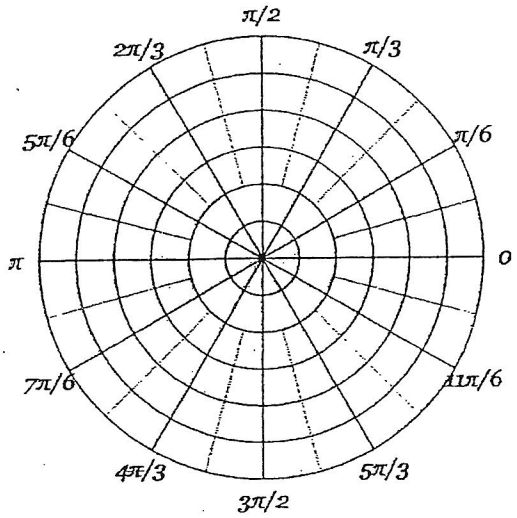
(a) $r = 3\cos\theta$

Type: _____



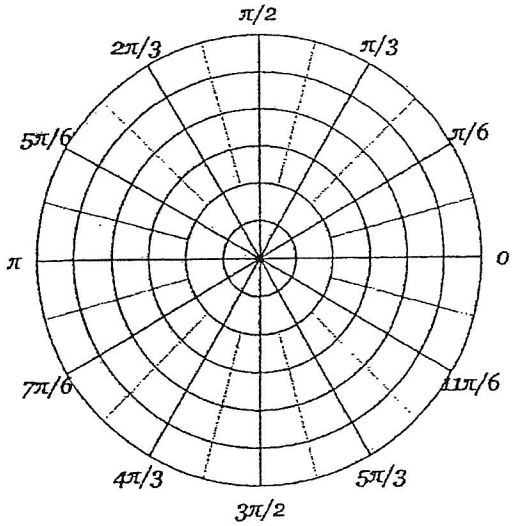
(b) $r = -2\sin\theta$

Type: _____



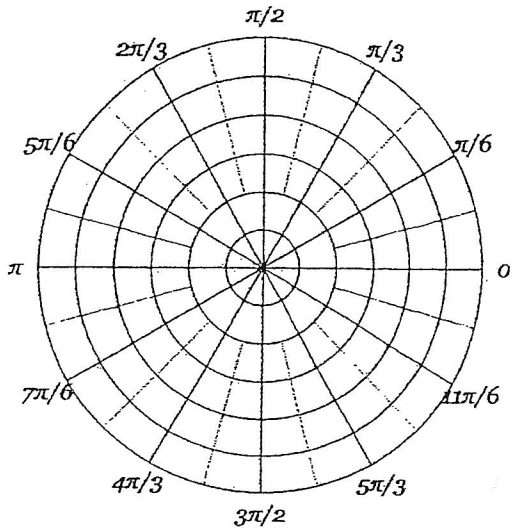
(c) $r = 2 + 2\sin\theta$

Type: _____



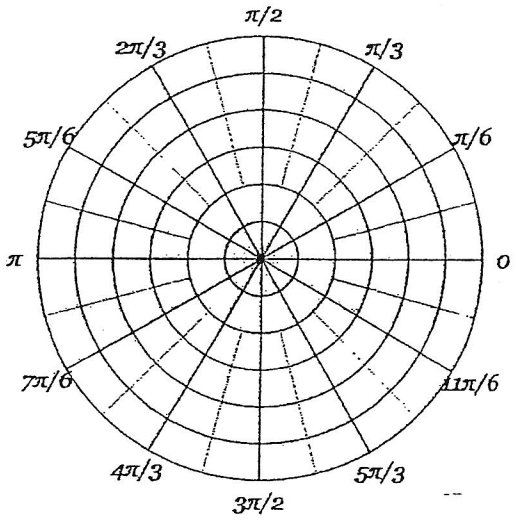
(d) $r = 3 + 2\cos\theta$

Type: _____



(e) $r = 1 + 2\sin\theta$

Type: _____



Notice that example (e) has an inner loop.

At what value of θ does the loop begin? _____

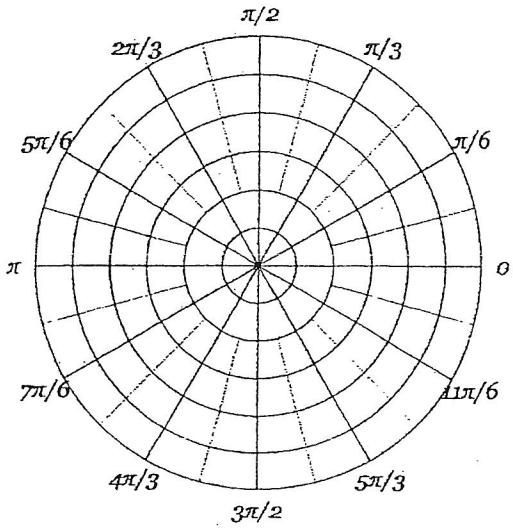
At what value of θ does the loop end? _____

What do you notice about the values of r for the points that are on the loop?

_____

(f) $r = 4\cos(2\theta)$

Type: _____



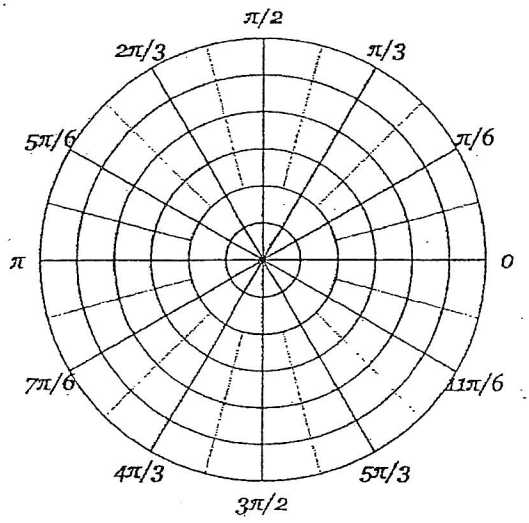
Name the values of θ where the petals begin and end. _____

What is the maximum value of r on your graph? _____

Name the values of θ that give a maximum value for r. _____

(g) $r = 6\sin(3\theta)$

Type: _____



Name the values of θ where the petals begin and end. _____

What is the maximum value of r on your graph? _____

Name the values of θ that give a maximum value for r. _____