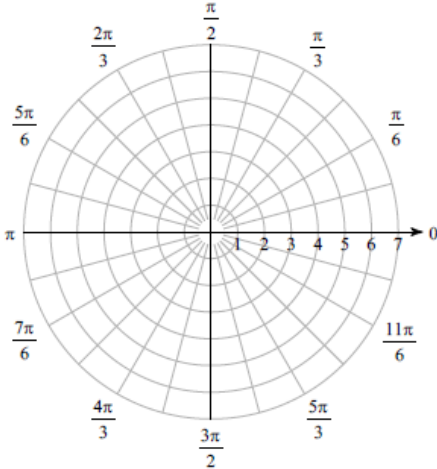


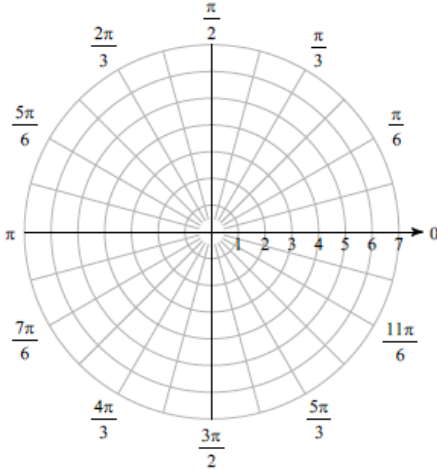
# Graphing Polar Equations CW

Consider each polar equation. Classify the curve; and sketch the graph.

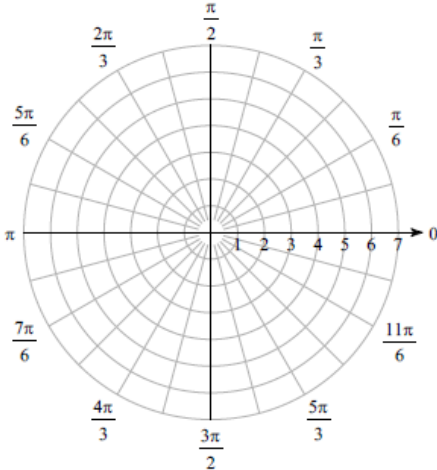
1)  $r = 2$



2)  $r = 5\cos \theta$



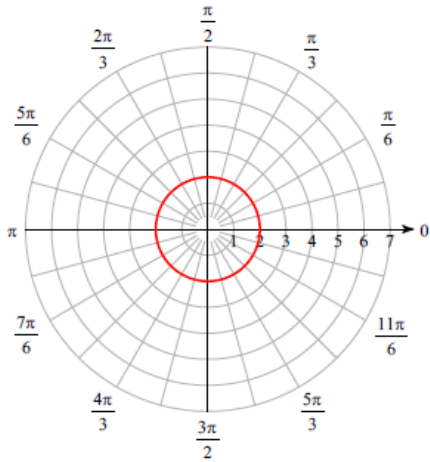
3)  $r = -6\sin \theta$



## Answers

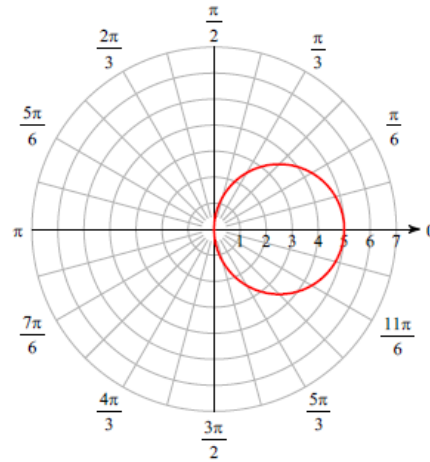
Consider each polar equation. Classify the curve; and sketch the graph.

1)  $r = 2$



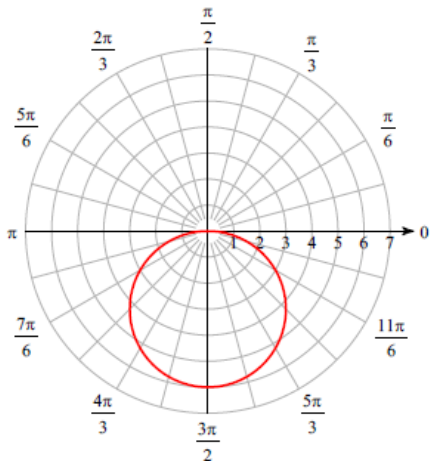
Circle

2)  $r = 5\cos\theta$



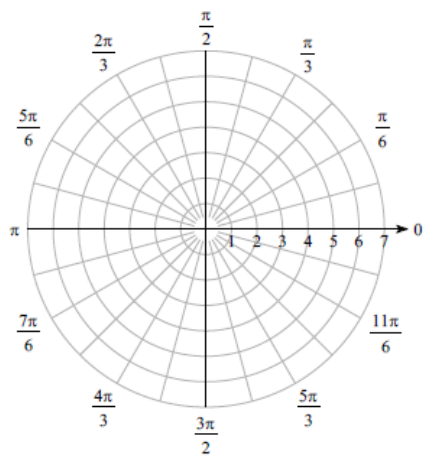
Circle

3)  $r = -6\sin\theta$

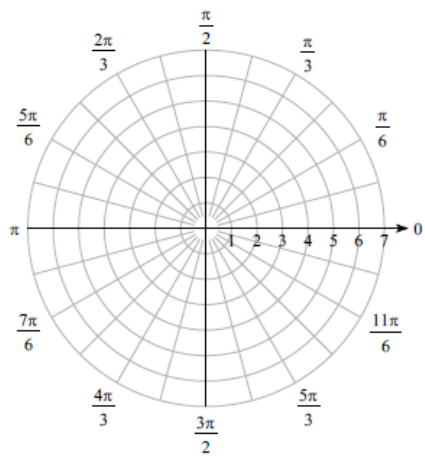


Circle

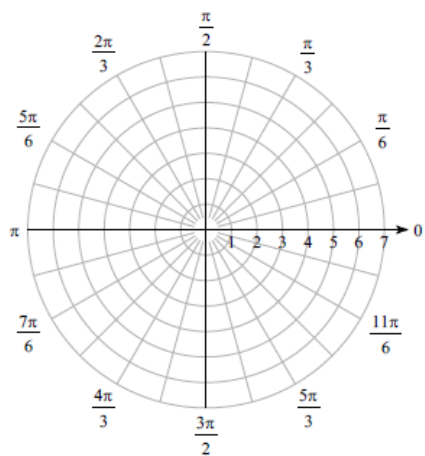
4)  $r = 1 - \sin \theta$



5)  $r = 3 - 3\sin \theta$

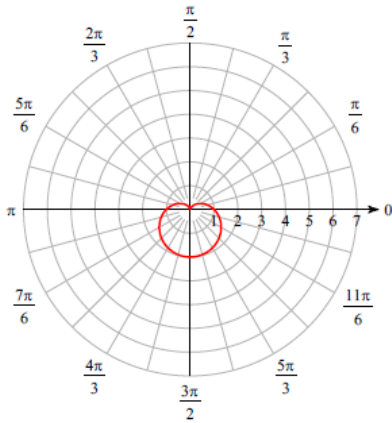


6)  $r = 2 - 4\cos \theta$



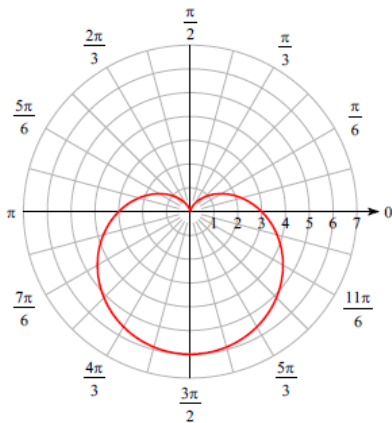
## Answers

4)  $r = 1 - \sin \theta$



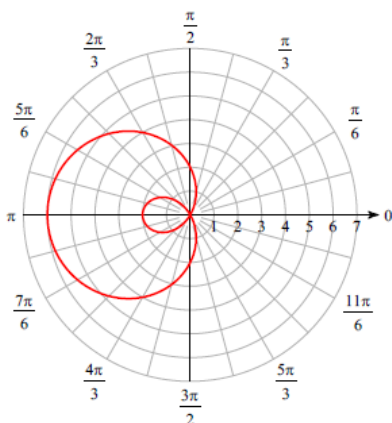
Cardioid (Limaçon)

5)  $r = 3 - 3\sin \theta$



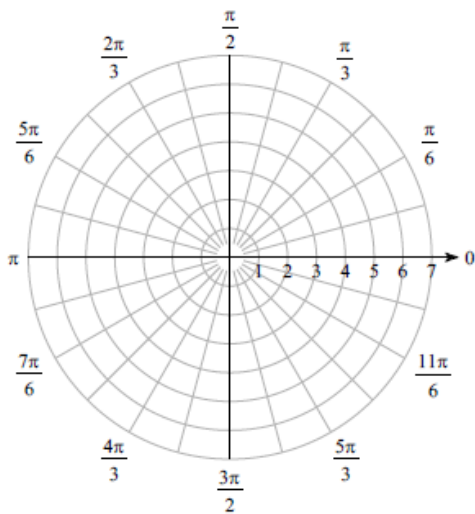
Cardioid (Limaçon)

6)  $r = 2 - 4\cos \theta$

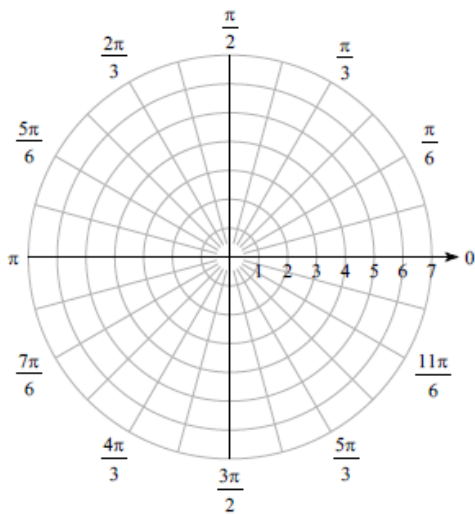


Looped limaçon

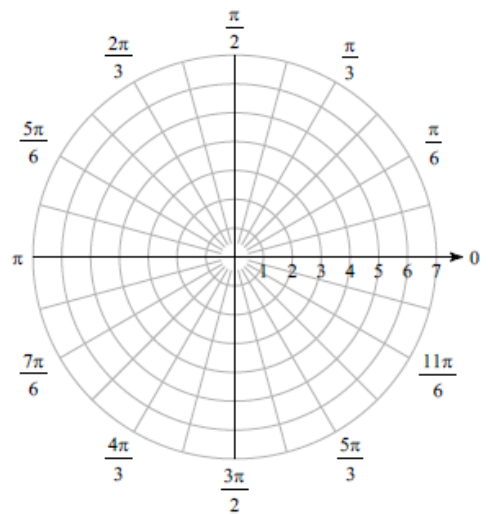
7)  $r = 4 + 3\sin \theta$



8)  $r^2 = 25\cos(2\theta)$

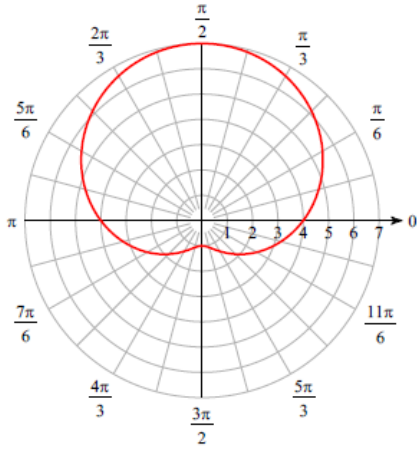


9)  $r^2 = 36\sin(2\theta)$



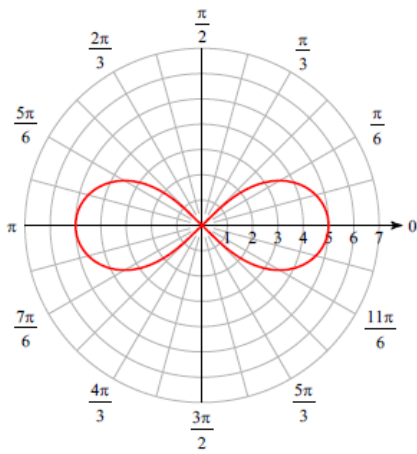
## Answers

7)  $r = 4 + 3\sin \theta$



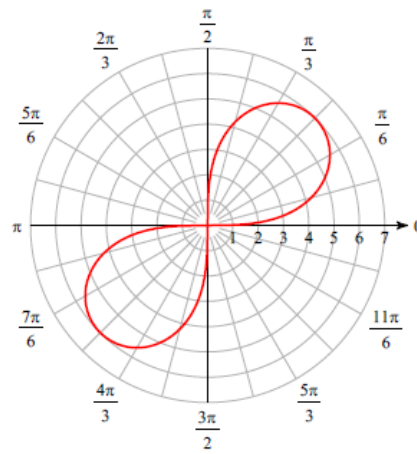
Dimpled limaçon

8)  $r^2 = 25\cos(2\theta)$



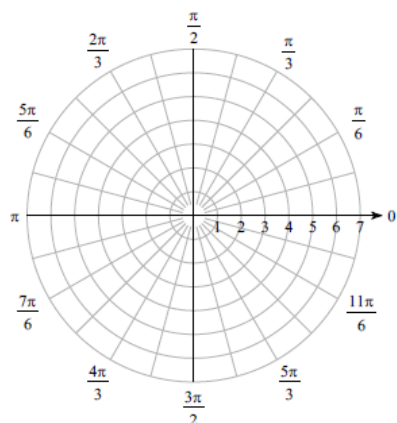
Lemniscate

9)  $r^2 = 36\sin(2\theta)$

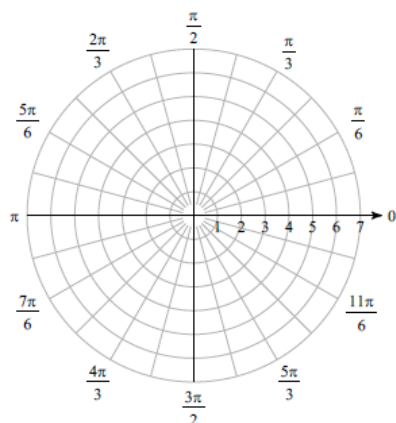


Lemniscate

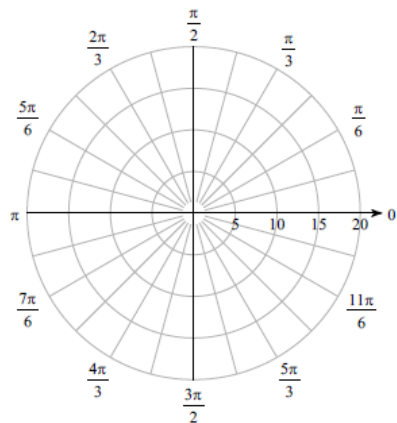
10)  $r = 4\sin(5\theta)$



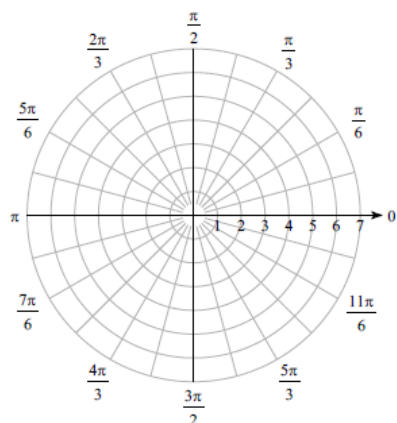
11)  $r = 7\cos(2\theta)$



12)  $r = 2\theta, \theta > 0$

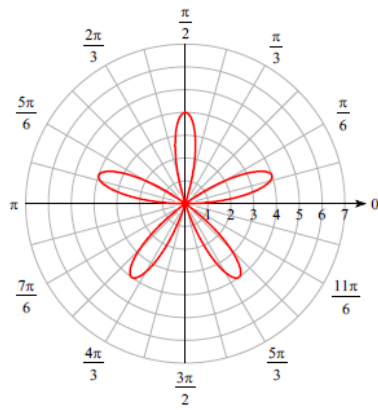


13)  $r = 2\cos(3\theta)$



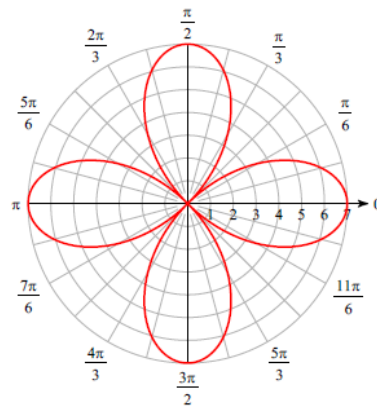
## Answers

10)  $r = 4\sin(5\theta)$



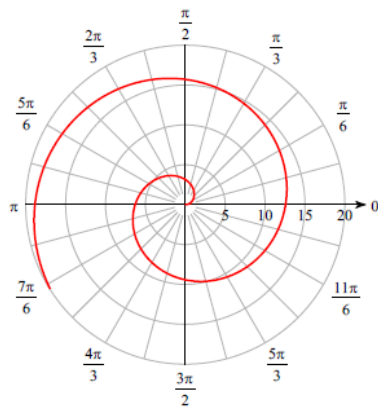
Rose

11)  $r = 7\cos(2\theta)$



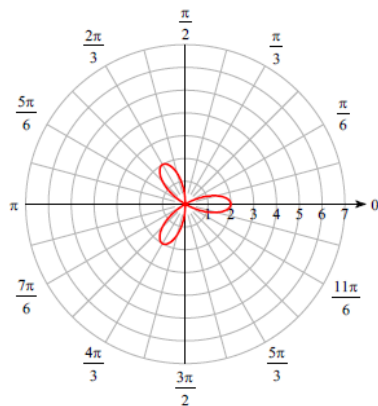
Rose

12)  $r = 2\theta, \theta > 0$



Spiral of Archimedes

13)  $r = 2\cos(3\theta)$



Rose