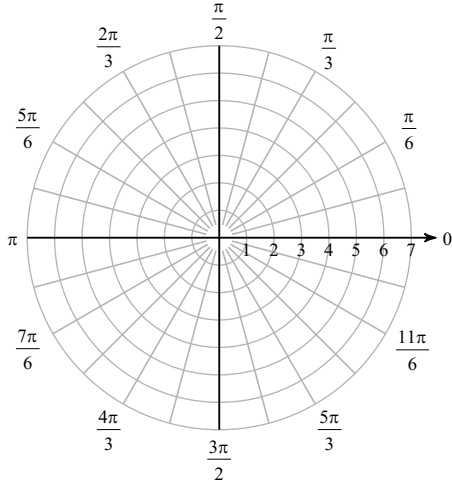


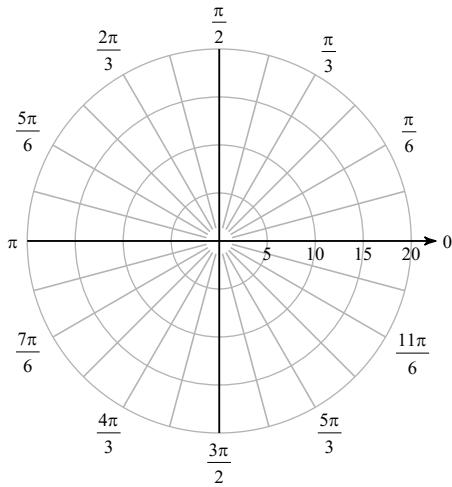
Mixed Polar Graphing

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

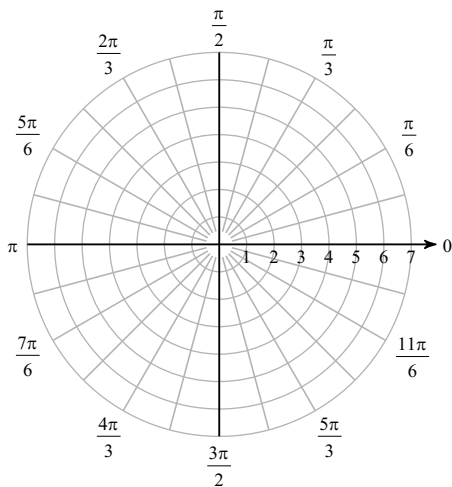
1) $r = 3\cos(5\theta)$



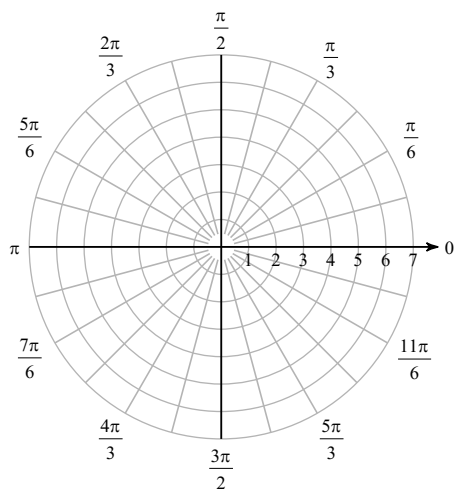
2) $r = 4\theta, \theta > 0$



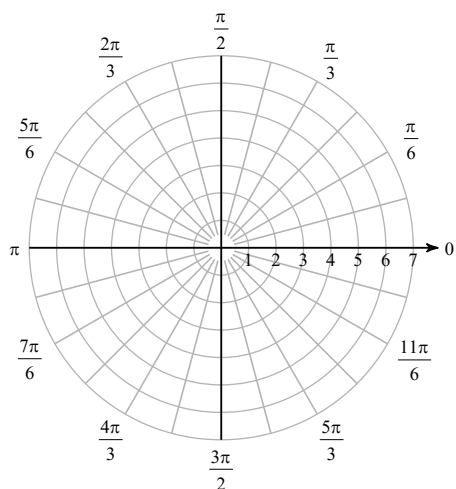
3) $r^2 = 25\sin(2\theta)$



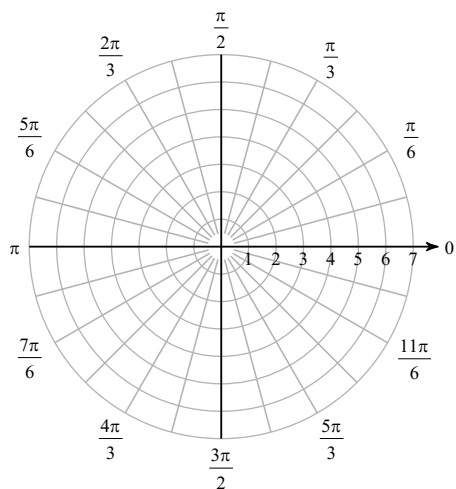
4) $r = 3 + 2\cos \theta$



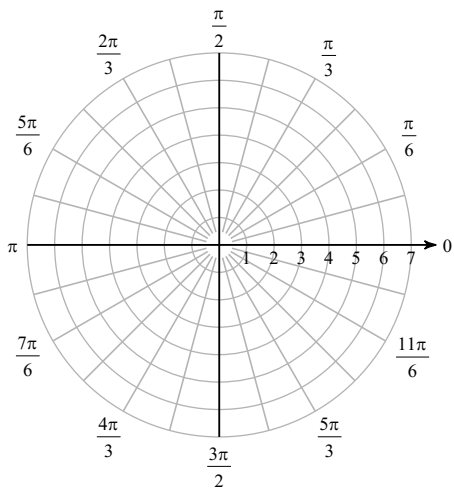
5) $r = 7\sin \theta$



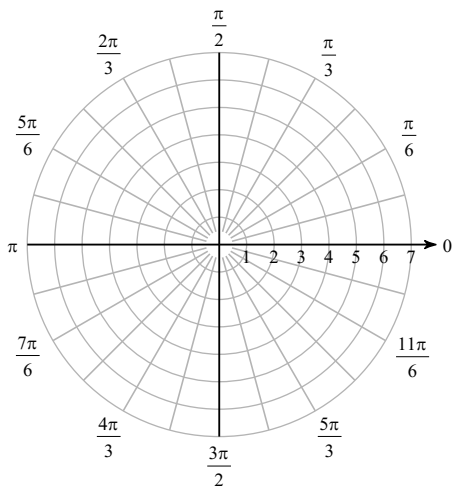
6) $r = 1 + \sin \theta$



7) $r = 2 - 4\sin \theta$

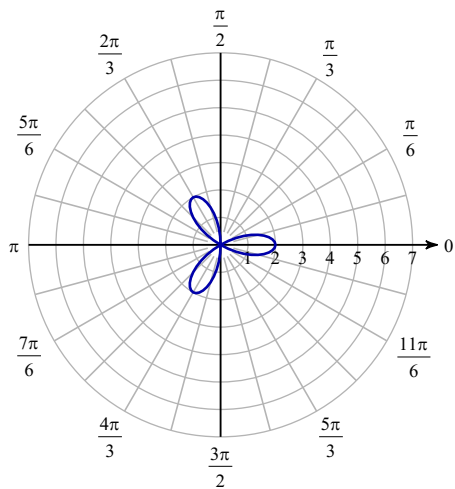


8) $r = 5\sin(3\theta)$

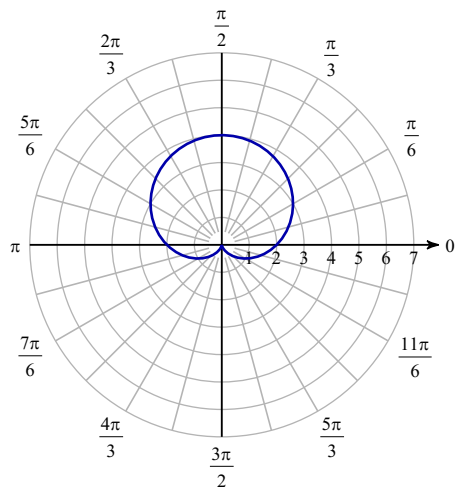


Consider each polar graph. Classify the curve; and write the equation.

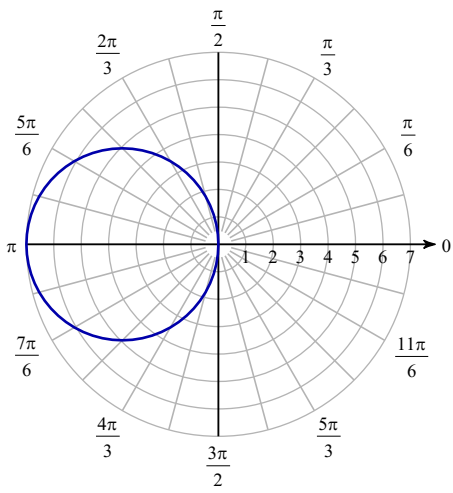
9)



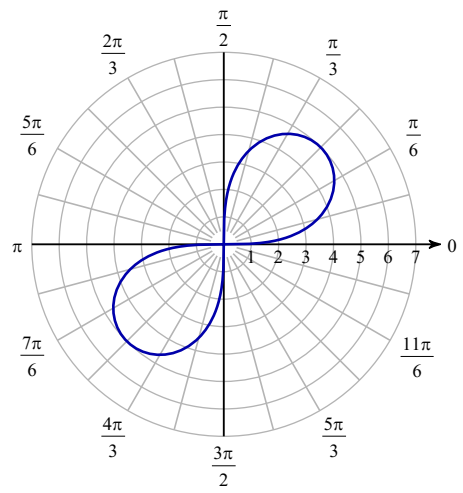
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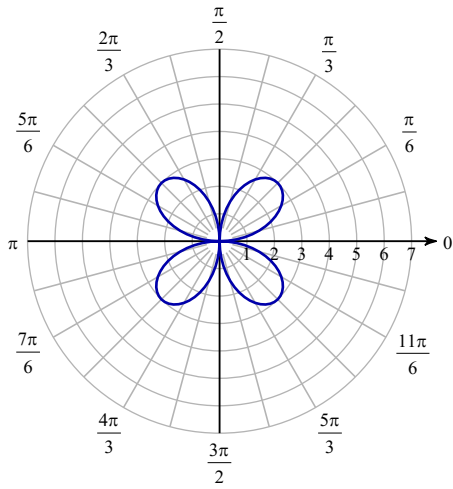
11)



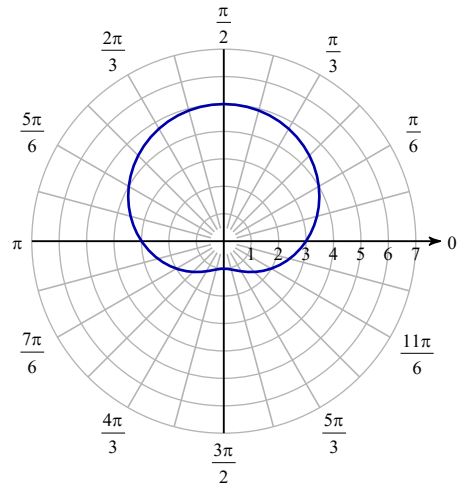
12)



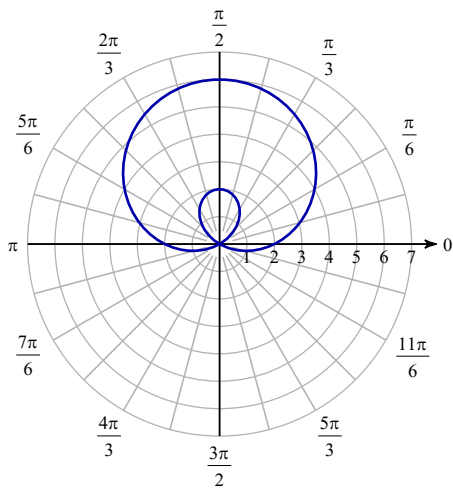
13)



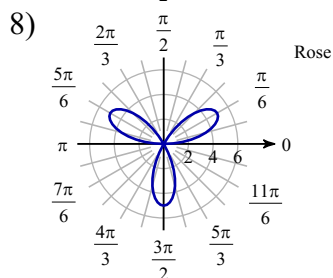
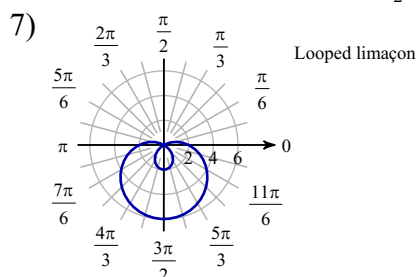
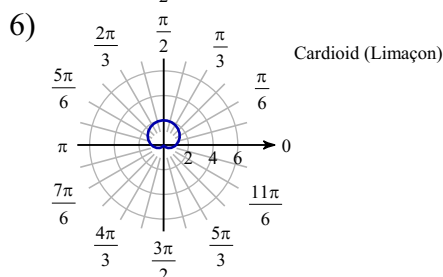
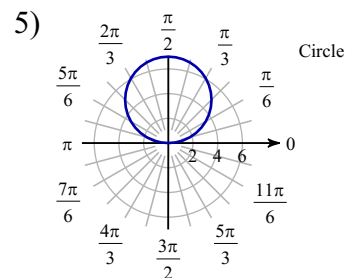
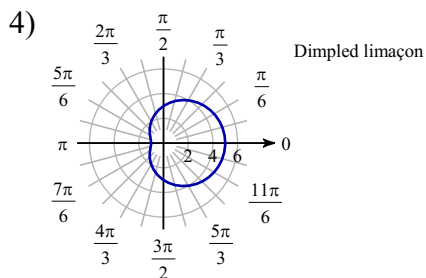
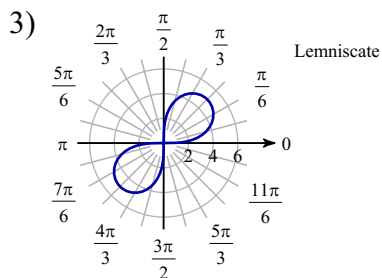
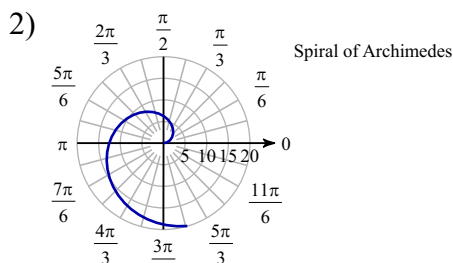
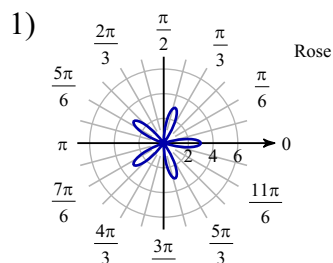
14)



15)



Answers to Mixed Polar Graphing



9) Rose
 $r = 2\cos(3\theta)$

10) Cardioid (Limaçon)
 $r = 2 + 2\sin\theta$

11) Circle
 $r = -7\cos\theta$

12) Lemniscate
 $r^2 = 25\sin(2\theta)$

13) Rose
 $r = 3\sin(2\theta)$

14) Dimpled limaçon
 $r = 3 + 2\sin\theta$

15) Looped limaçon
 $r = 2 + 4\sin\theta$