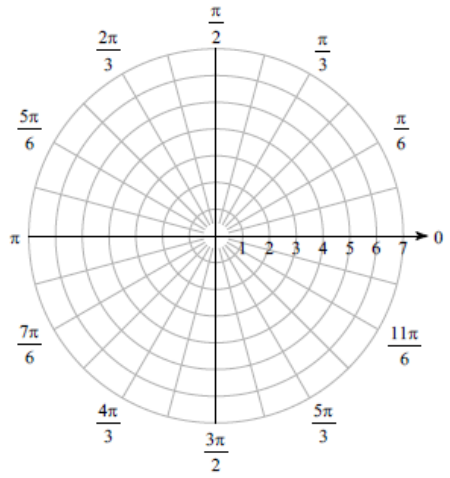
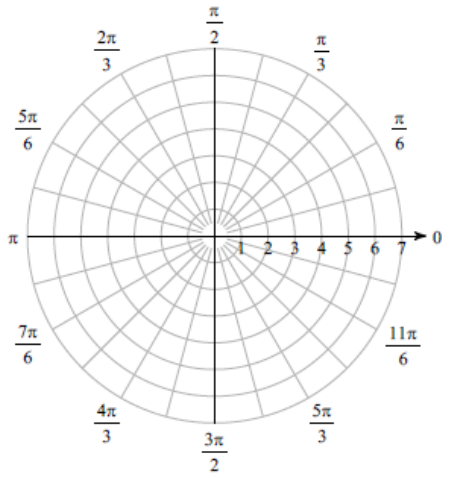
Graphing Polar Equations CW

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

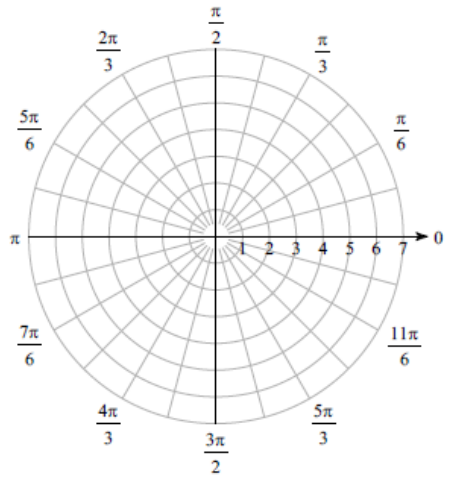
1) $r = 2$



2) $r = 5\cos\theta$



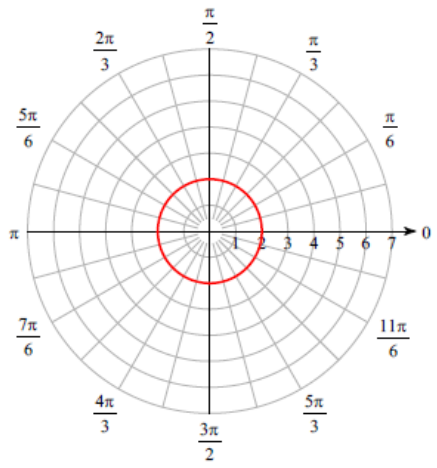
3) $r = -6\sin\theta$



Answers

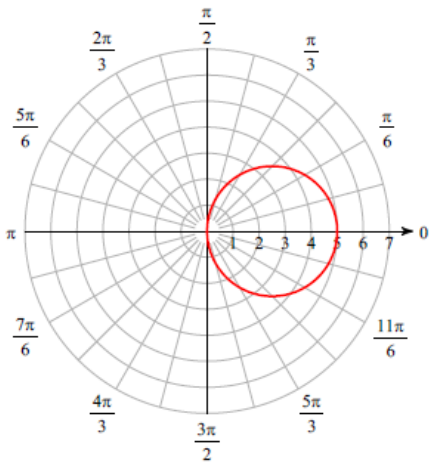
Consider each polar equation. Classify the curve; and sketch the graph.

1) $r = 2$



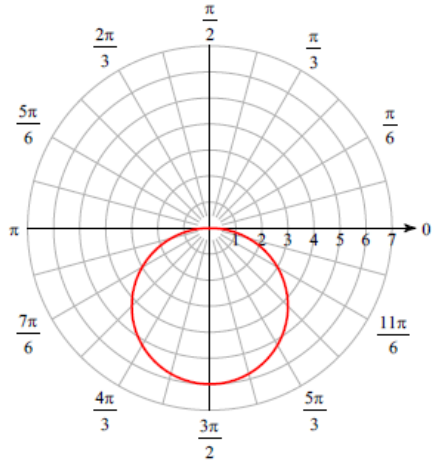
Circle

2) $r = 5\cos\theta$



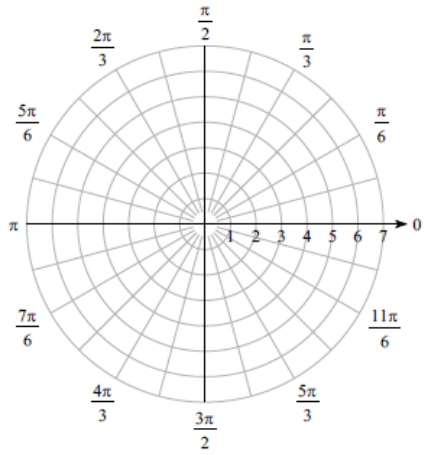
Circle

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

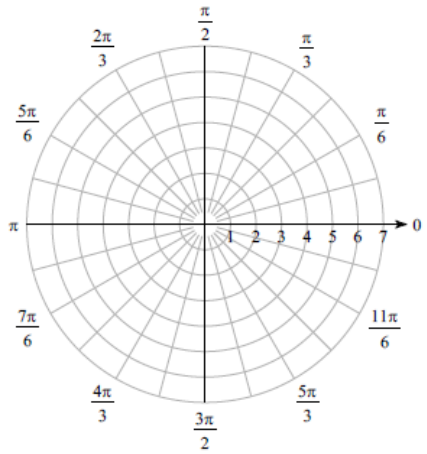


Circle

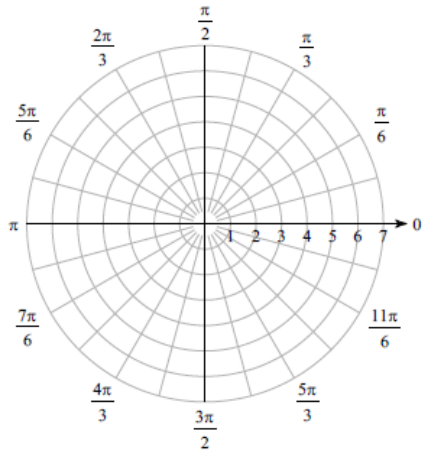
4) $r = 1 - \sin\theta$



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

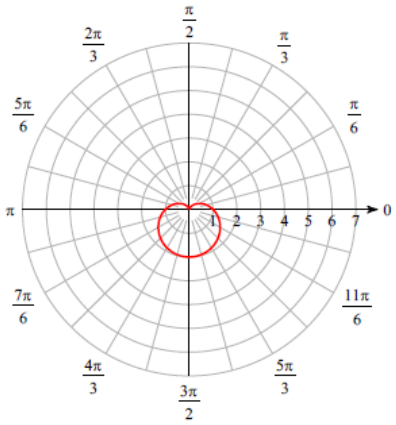


6) $r = 2 - 4\cos\theta$



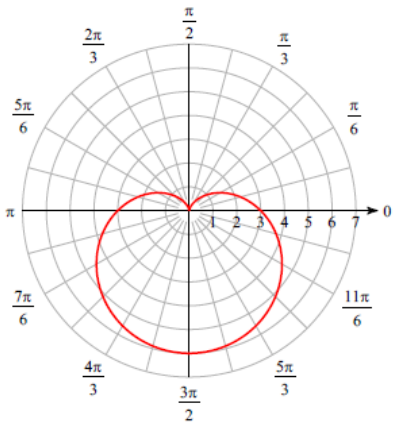
Answers

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



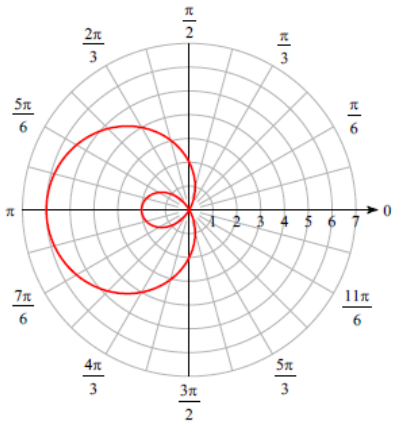
Cardioid (Limaçon)

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



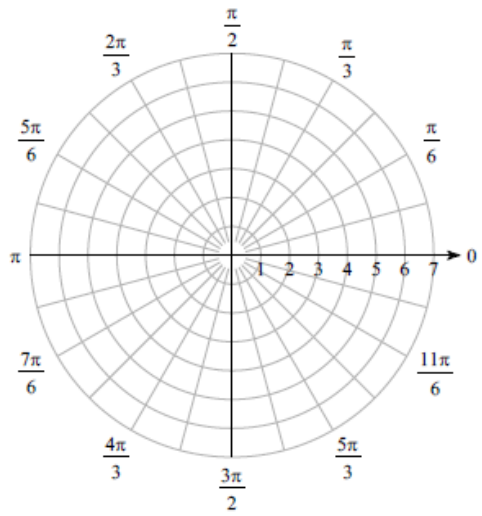
Cardioid (Limaçon)

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

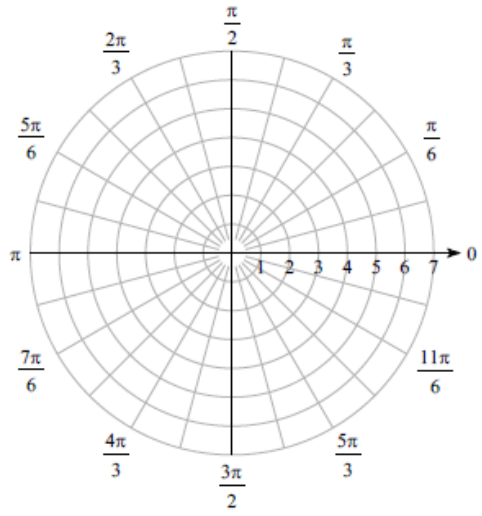


Looped limaçon

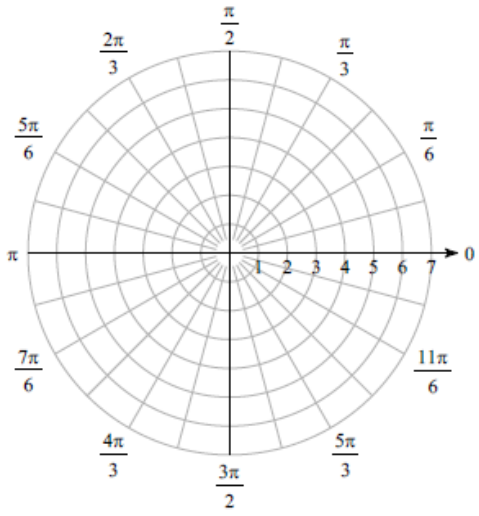
7) $r = 4 + 3\sin\theta$



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

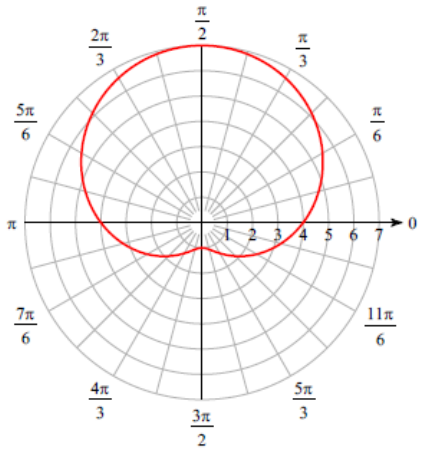


9) $r^2 = 36\sin(2\theta)$



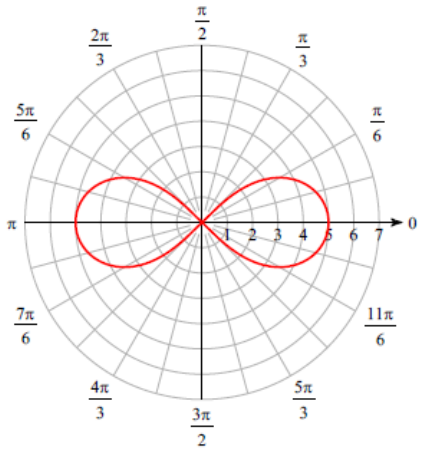
Answers

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



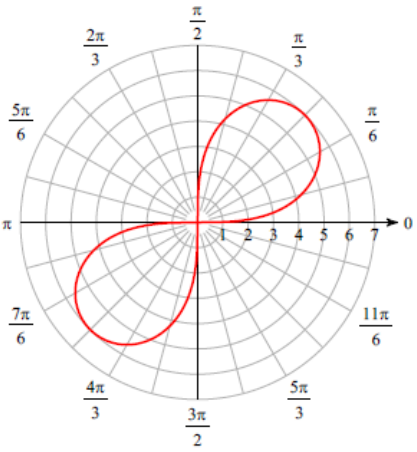
Dimpled limaçon

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



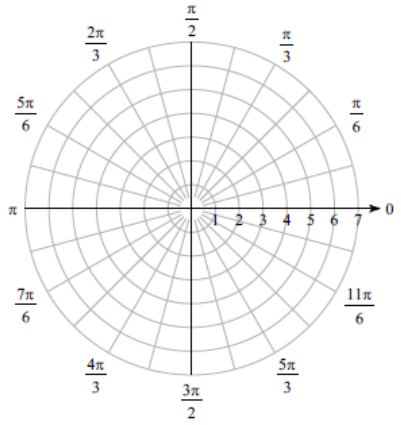
Lemniscate

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

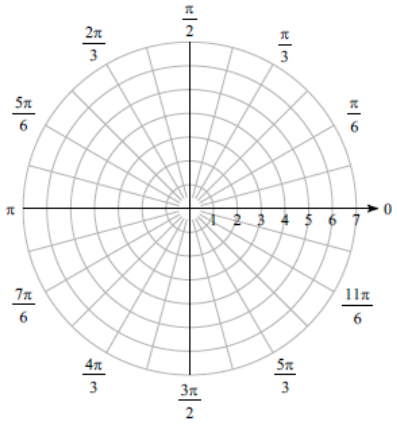


Lemniscate

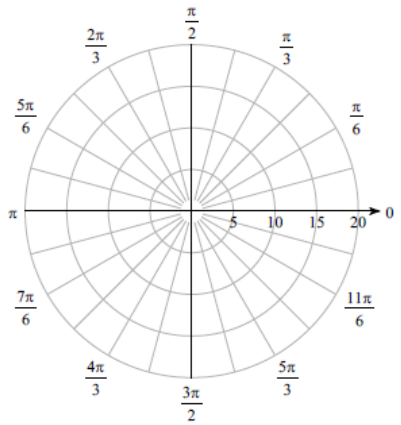
10) $r = 4\sin(5\theta)$



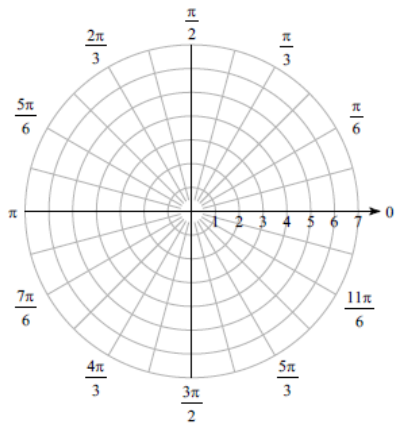
11) $r = 7\cos(2\theta)$



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

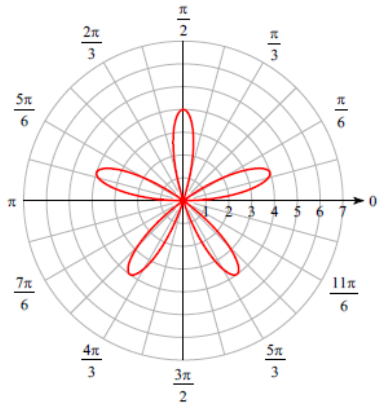


13) $r = 2\cos(3\theta)$



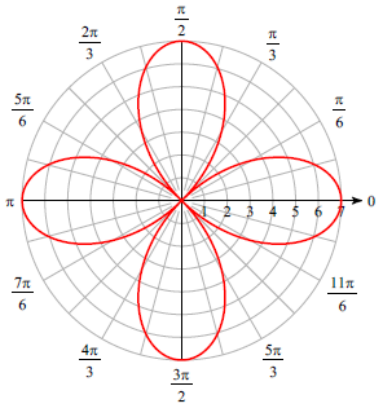
Answers

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



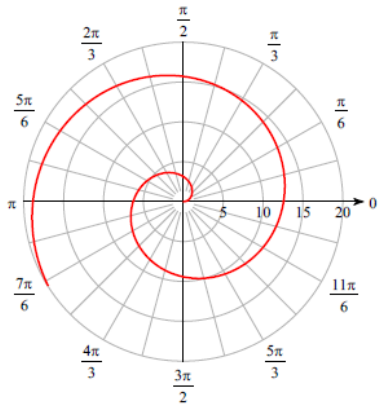
Rose

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



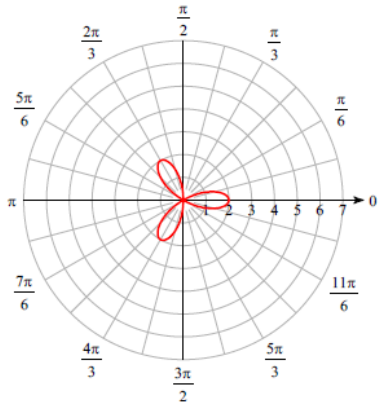
Rose

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



Spiral of Archimedes

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



Rose