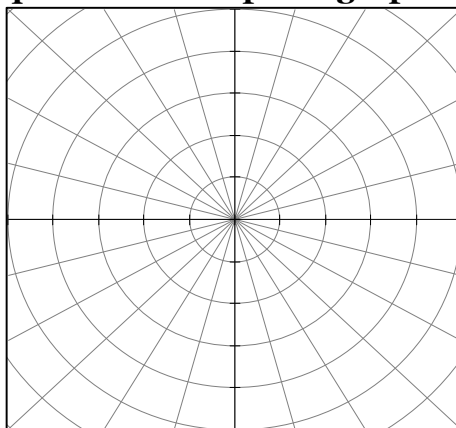
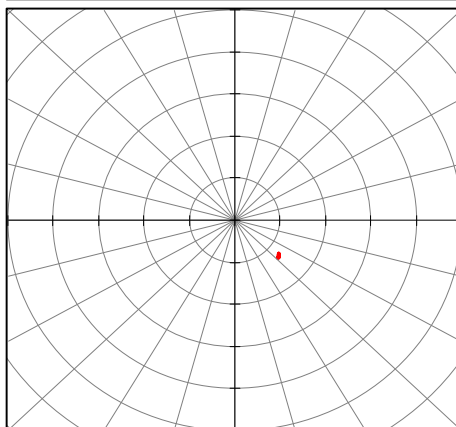


Determine the equation and then draw a graph the equation on the polar graph.

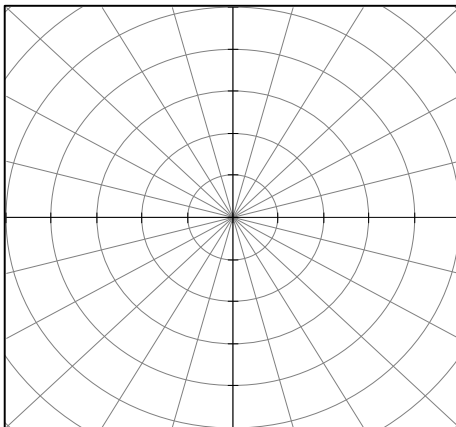
- 1) Rose centered at the origin with 12 petals of length 6.



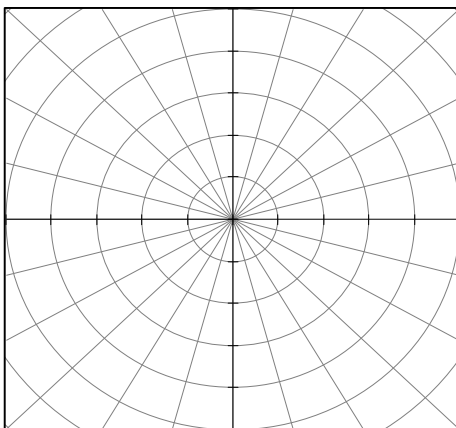
- 2) Rose centered at the origin with 5 petals of length 8.

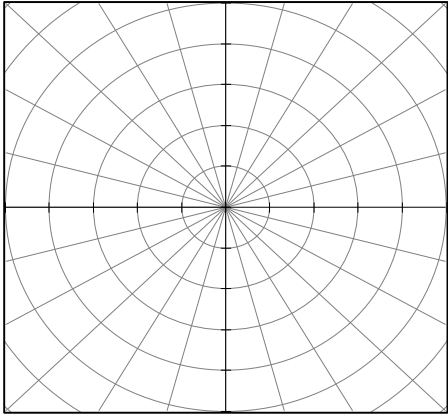


- 3) Rose centered at the origin with 3 petals of length 2, one petal that lies on the positive x-axis.



- 4) Rose centered at the origin with 4 petals of length 7, reflexive about both axes.





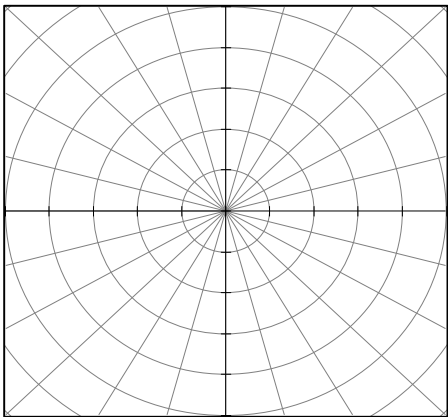
5. $r(\theta) = 2 + 2 \sin \theta$

A) Name of curve _____

B) x-intercepts _____

C) y-intercepts _____

D) Symmetry _____



6. $r(\theta) = 2 \cos 2\theta$

a) Name of curve _____

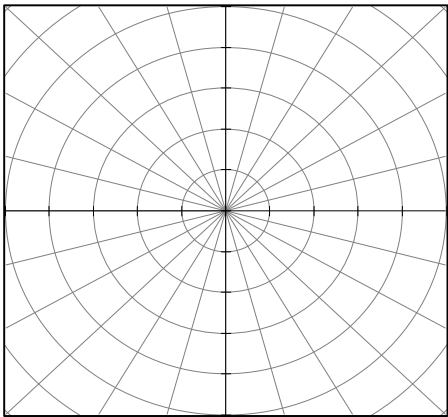
b) Number of Petals _____

c) Angle of 1st petal _____

d) Angle between petals _____

e) Length of petals _____

f) Symmetry _____



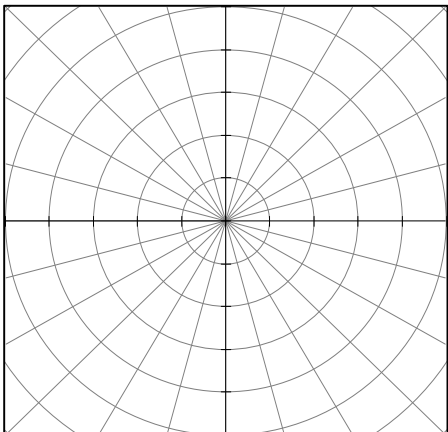
7. $r(\theta) = 3 \sin \theta$

A) Name of curve _____

B) x-intercepts _____

C) y-intercepts _____

D) Symmetry _____



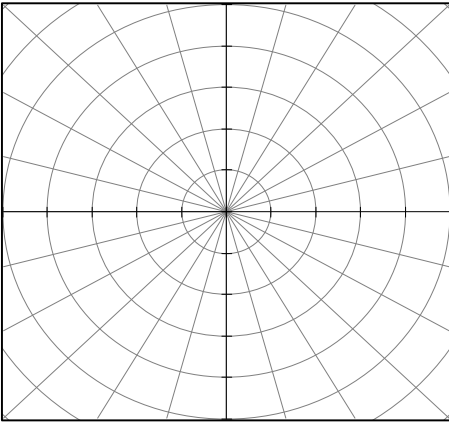
8. $r(\theta) = 3 - 3 \sin \theta$

A) Name of curve _____

B) x-intercepts _____

C) y-intercepts _____

D) Symmetry _____



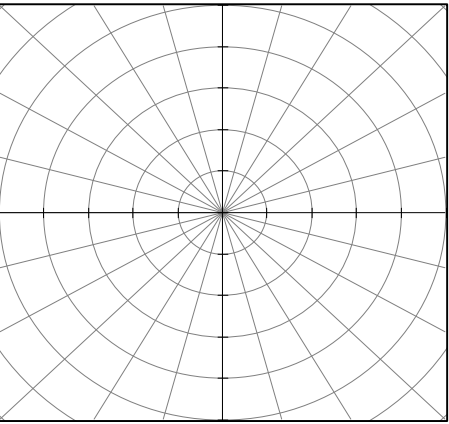
9. $r(\theta) = 2 - 2\cos\theta$

A) Name of curve _____

B) x-intercepts _____

C) y-intercepts _____

D) Symmetry _____



10. $r(\theta) = 4\sin 3\theta$

A) Name of curve _____

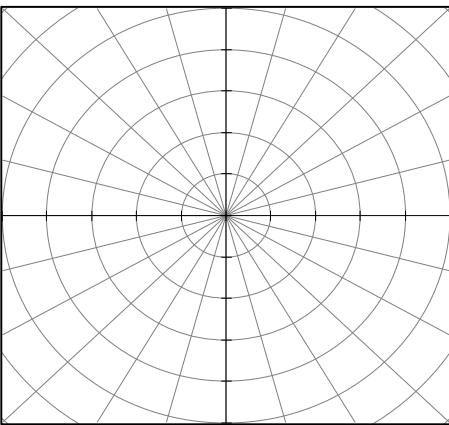
B) Number of Petals _____

C) Angle of 1st petal _____

D) Angle between petals _____

E) Length of petals _____

F) Symmetry _____



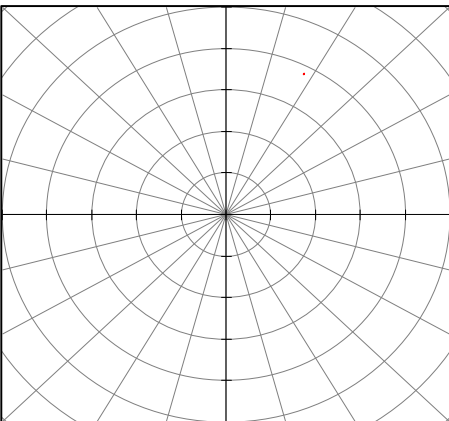
11. $r(\theta) = -1 + \cos\theta$

A) Name of curve _____

B) x-intercepts _____

C) y-intercepts _____

D) Symmetry _____



12. $r(\theta) = 2\cos 5\theta$

A) Name of curve _____

B) Number of Petals _____

C) Angle of 1st petal _____

D) Angle between petals _____

E) Length of petals _____

F) Symmetry _____