

Graphing in Polar Worksheet

Identify the polar graph (*circle with center at pole, circle with center on x-axis, circle with center on y-axis, line through pole*):

1. $r = 8\cos\theta$

2. $r = -6$

3. $\theta = \frac{5\pi}{3}$

4. $r = -2\sin\theta$

Identify the polar graph (*line, circle, cardioid, limaçon, rose*):

If a circle, name the center (in polar coordinates) and the radius.

If a limaçon, name the type.

If a rose, state the number of petals.

5. $r = -10\cos\theta$

6. $r = 5 - 5\sin\theta$

7. $r = -7\sin 9\theta$

8. $\theta = -\frac{11\pi}{6}$

9. $r = 5 - 6\sin\theta$

10. $r = -7\cos 4\theta$

11. $r = 4\sin\theta$

12. $r = 8 + 6\cos\theta$

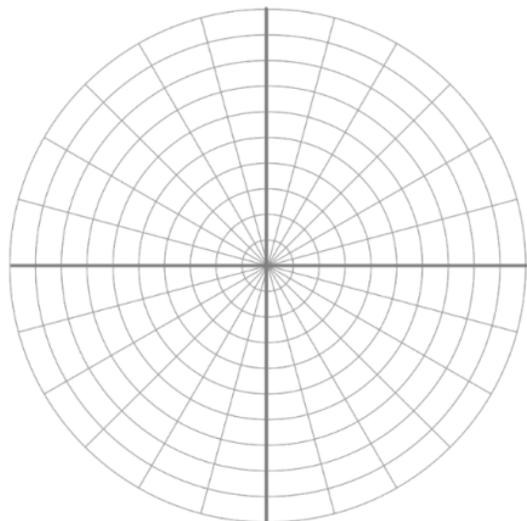
13. $r = 8\cos 5\theta$

14. $r = 5$

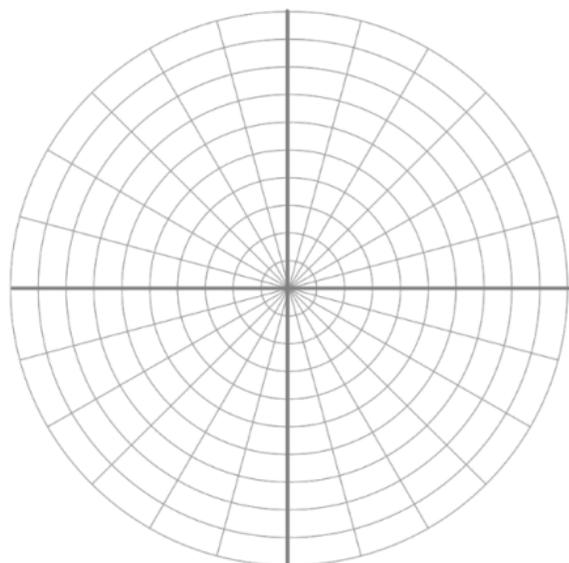
15. $r = 8 + 6\cos\theta$

For each given function: a. State the type of graph b. Find symmetry c. Graph

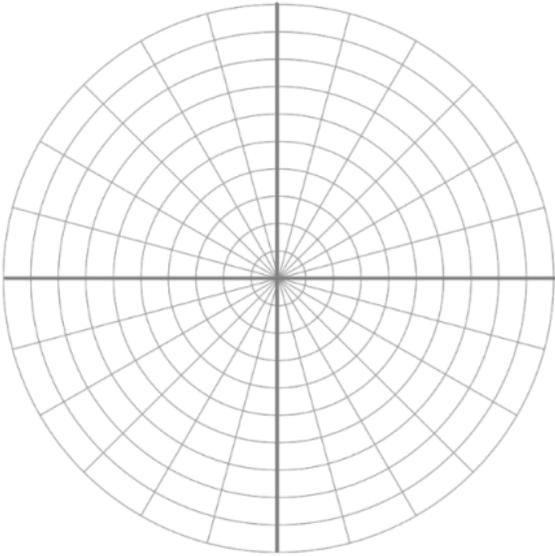
1. $r = -7$



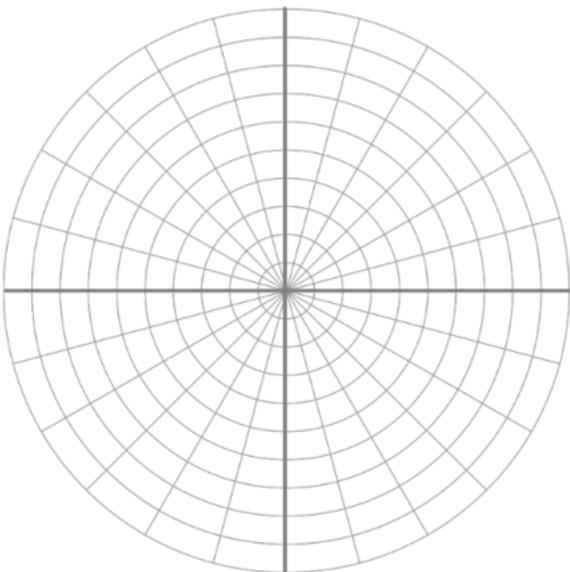
2. $\theta = -\frac{2\pi}{3}$



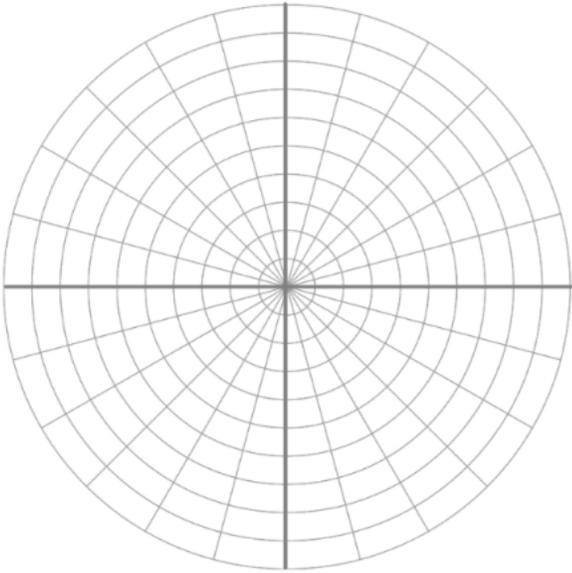
3. $r = 8\cos\theta$



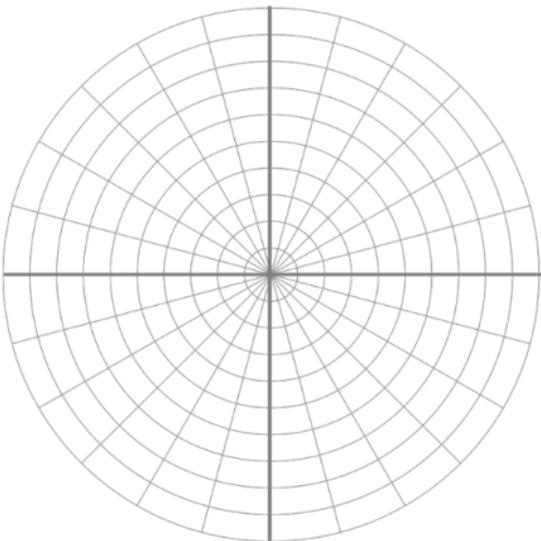
4. $r = -6\sin\theta$



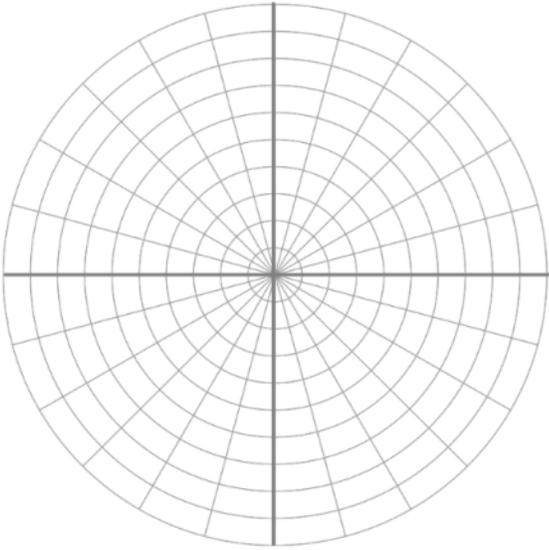
5. $r = 5 + 5\cos\theta$



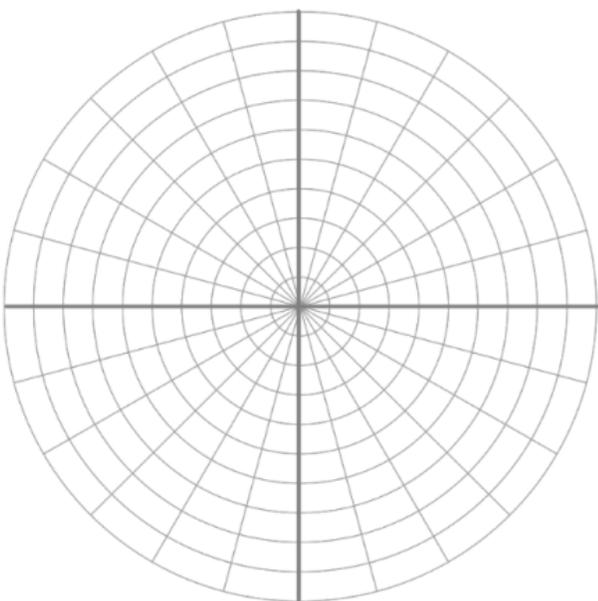
6. $r = 3 - 3\sin\theta$



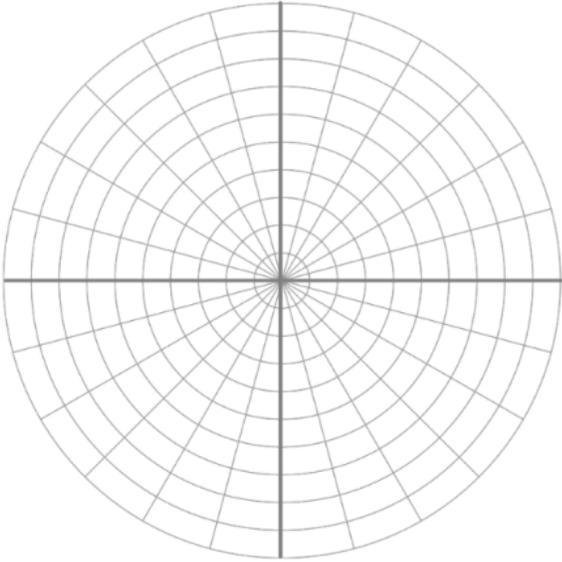
7. $r = 2 - 6\cos\theta$



8. $r = 7 + 3\sin\theta$



9. $r = -8\cos 2\theta$



10. $r = 6\sin 3\theta$

