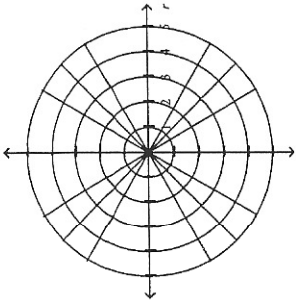
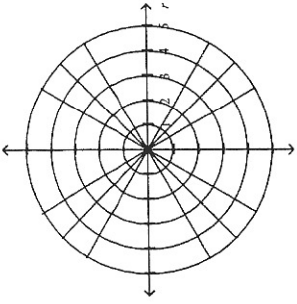


Plot the following points on a polar coordinate system.

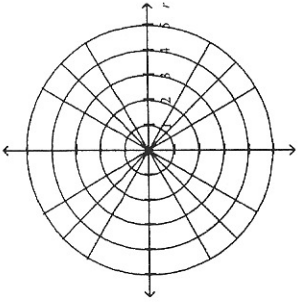
1. $(-3, \frac{5\pi}{3})$



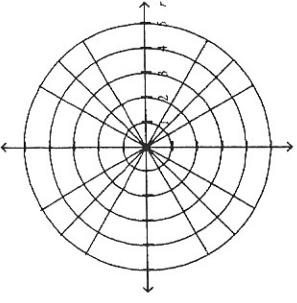
2. $(2, \pi)$



3. $(-1, \frac{-\pi}{4})$



4. $(4, \frac{-7\pi}{6})$



Name the following in 2 other ways (use only one rotation).

5. $(-2, \frac{3\pi}{2})$ _____

6. $(3, \frac{\pi}{3})$ _____

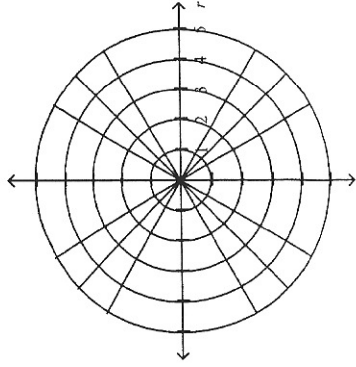
Transform the following points.

7. Change polar coordinates $(3, \frac{5\pi}{6})$ to rectangular coordinates (x, y) . _____

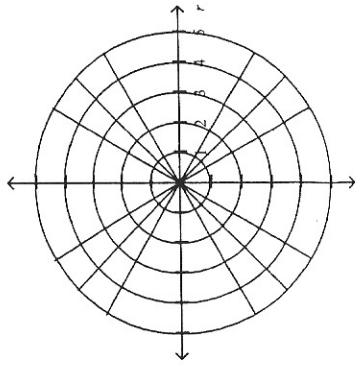
8. Change rectangular coordinates $(-\sqrt{2}, \sqrt{2})$ to polar coordinates (r, θ) . _____

Sketch the graphs of the following polar equations.

9. $r = 2$

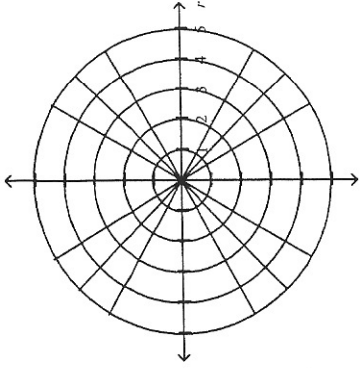


10. $\theta = \frac{\pi}{3}$

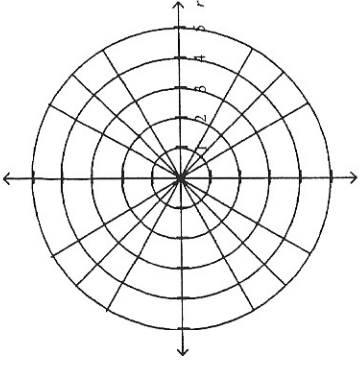


Continue to sketch the graphs of the following polar equations.

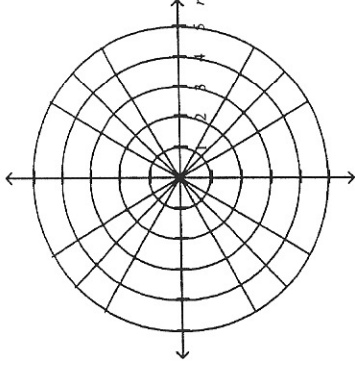
11. $r = 4 \cos \theta$



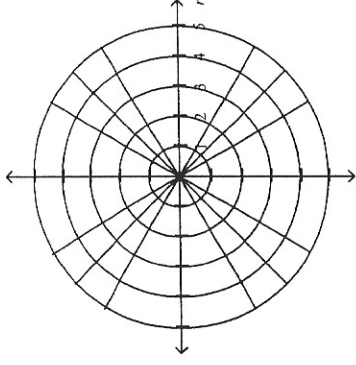
12. $r = -1 - \cos \theta$



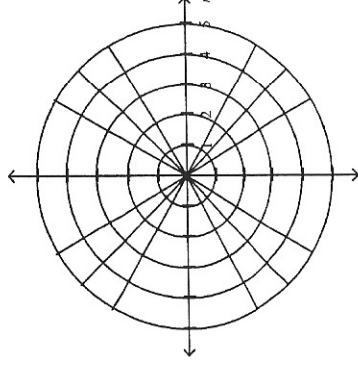
13. $r = 2 - 3 \sin \theta$



14. $r = 3 \cos 2\theta$



15. $r = \frac{1}{4} \theta$



16. $r^2 = -16 \sin 2\theta$

