Math 122 - #29
Polar Equations

Find the polar equation for the given rectangular equation.

1. $x^2 + y^2 = 9$

2. $(x + 6)^2 + y^2 = 36$

Find the rectangular equation for the given polar equation.

3. $r = 3 \csc \theta$

4. $r^2 - 16 = 0$

5. $r + 4 \cos \theta = 0$

6. $r = \dfrac{1}{2 \sin \theta + 5 \cos \theta}$

Graph the following polar equations.

7. $r = 2 + 4 \sin \theta$

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

9. $r = 3 \sin 5\theta$

10. $r = 2 \cos \theta$

11. $r = 4 \sin \theta + 3 \cos \theta$

Answers

1. $r = 3$

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

3. $y = 3$

4. $x^2 + y^2 = 16$

5. $(x+2)^2 + y^2 = 4$

6. $2y + 5x = 1$