

Assignment: Conversion of form of equation

Date _____

Convert each equation from polar to rectangular form. Then graph the polar equation.

1) $\theta = \frac{2\pi}{3}$

2) $\cot \theta = 2$

Convert each equation from rectangular to polar form.

3) $x = \frac{y^2}{4}$

4) $y = \frac{x^2}{5}$

5) $x^2 + (y - 1)^2 = 1$

6) $y = \frac{x}{5}$

Convert each equation from polar to rectangular form.

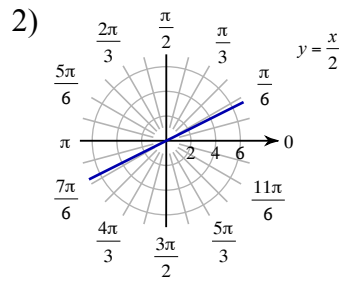
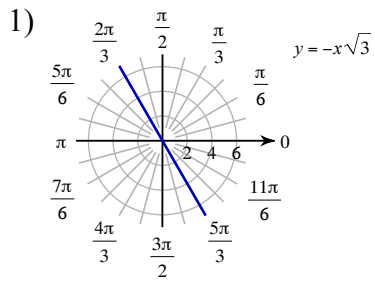
7) $r = 6\sin \theta$

8) $r = -4\cos \theta - 4\sin \theta$

9) $r = 6\sin \left(\theta + \frac{\pi}{6} \right)$

10) $r^2 = 3\sec(2\theta)$

Answers to Assignment: Conversion of form of equation



3) $r = 4\cot \theta \csc \theta$

4) $r = 5\tan \theta \sec \theta$

5) $r = 2\sin \theta$

6) $\cot \theta = 5$

8) $(x + 2)^2 + (y + 2)^2 = 8$

9) $\left(x - \frac{3}{2}\right)^2 + \left(y - \frac{3\sqrt{3}}{2}\right)^2 = 9$

7) $x^2 + (y - 3)^2 = 9$
10) $x^2 - y^2 = 3$

