

Polar Equations to Rectangular

Period _____

Convert each equation from polar to rectangular form.

1) $r = \cot \theta \csc \theta$

2) $r = 2 \cot \theta \csc \theta$

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

4) $r = 2 \sin \theta$

5) $r = -2 \cos \theta - 2 \sin \theta$

6) $r = 2 \cos \theta + 2 \sin \theta$

7) $r = 2 \cos \theta$

8) $r = 4 \sin \theta$

9) $r = 3 \tan \theta \sec \theta$

10) $r = 4 \sin \left(\theta + \frac{\pi}{4} \right)$

11) $r^2 = 2 \sec (2\theta)$

12) $r^2 = \csc (2\theta)$

13) $r = -4 \cos \theta + 4 \sin \theta$

14) $r = -2 \cos \theta + 6 \sin \theta$

15) $r = -2 \cos \theta$

16) $r^2 = 4 \csc (2\theta)$

Answers to Polar Equations to Rectangular

1) $x = y^2$

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

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

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

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

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

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

8) $x^2 + (y - 2)^2 = 4$

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

10) $(x - \sqrt{2})^2 + (y - \sqrt{2})^2 = 4$

11) $x^2 - y^2 = 2$

12) $y = \frac{1}{2x}$

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

14) $(x + 1)^2 + (y - 3)^2 = 10$

15) $(x + 1)^2 + y^2 = 1$

16) $y = \frac{2}{x}$