

Converting Polar/Rectangular Equations

Convert the rectangular equation into polar form.

1) $x^2 + y^2 - 121 = 0$

~~2) $x^2 + y^2 - 49 = 0$~~

~~3) $x^2 + y^2 - 28x + 22y = 0$~~

~~4) $x^2 + y^2 - 22x + 30y = 0$~~

5) $x^2 + y^2 - 22x + 10y = 0$

6) $(x - 3)^2 + (y - 4)^2 = 25$

7) $(x + 2)^2 + (y + 6)^2 = 40$

8) $(x - 11)^2 + (y - 2)^2 = 125$

9) $x = 16$

10) $y = x$

11) $y = \frac{\sqrt{3}}{3}x$

12) $4x + 5y = -40$

13) $y = 0$

14) $y = 6x + 5$

Convert the polar equation into rectangular form.

15) $\theta = \frac{5\pi}{6}$

16) $\theta = -\frac{\pi}{6}$

17) $r = 4$

18) $r = 2$

19) $r = 4\sin \theta$

20) $r = -2\sin \theta$

$$21) r = \frac{3}{\cos \theta}$$

$$22) r = 8$$

$$23) r = 5\cos \theta - 8\sin \theta$$

$$24) r = -8\cos \theta + 10\sin \theta$$

$$25) r = -\frac{11}{\sin \theta}$$

$$26) r = 4\csc \theta$$

$$27) r = 9\sec \theta$$

$$28) \theta = 315^\circ$$