Homework 11 Math 48C Mitchell Schoenbrun
9.4 P. 658 #7, 9, 11, 13, 15, 17, 19, 21, 23, 28, 29, 36, 37

7.

$(3,0) \to (3,0)$

or

$(3,0) \to (3,0^\circ)$

9.

$(-4,0) \to (4,\pi)$

or

$(-4,0) \to (4,180^\circ)$

11.

$$(1,-\sqrt{3}) \to \left(\sqrt{1^2+\left(-\sqrt{3}\right)^2}, \tan^{-1}\left(\frac{-\sqrt{3}}{1}\right)\right) = \left(2,-\frac{\pi}{3}\right)$$

or

$(1,-\sqrt{3}) \to (2,-60^\circ)$

13.

$$(-1,-5) \to \left(\sqrt{(-1)^2+(-5)^2}, \tan^{-1}\left(\frac{-5}{-1}\right)\right) \approx$$

$(\sqrt{26}, 4.5)$

or

$(-1,-5) \to \approx (\sqrt{26}, 78.7^\circ)$

15.

$$(-6,5) \to \left(\sqrt{(-6)^2+5^2}, \tan^{-1}\left(\frac{5}{-6}\right)\right) = (\sqrt{61}, -.695)$$

or

$(-6,5) \to (\sqrt{61}, -39.8^\circ)$

17.

$$\left(3,\frac{\pi}{2}\right) \to \left(3\cos\left(\frac{\pi}{2}\right), 3\sin\left(\frac{\pi}{2}\right)\right) = (3,0)$$

19.

$$\left(3,\frac{\pi}{2}\right) \to \left(3\cos\left(\frac{\pi}{2}\right), 3\sin\left(\frac{\pi}{2}\right)\right) = (3,0)$$

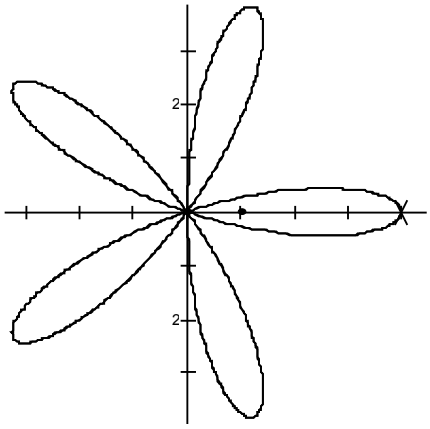
21.

$$\left(2,-\frac{\pi}{3}\right) \to \left(2\cos\left(-\frac{\pi}{3}\right), 2\sin\left(-\frac{\pi}{3}\right)\right) = \left(1,-\frac{\sqrt{3}}{2}\right)$$

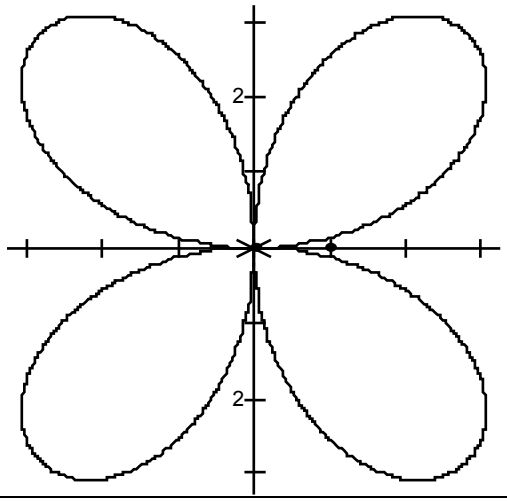
23.

$(2,4) \to (2\cos(4), 2\sin(4)) = (-1.3, -1.5)$

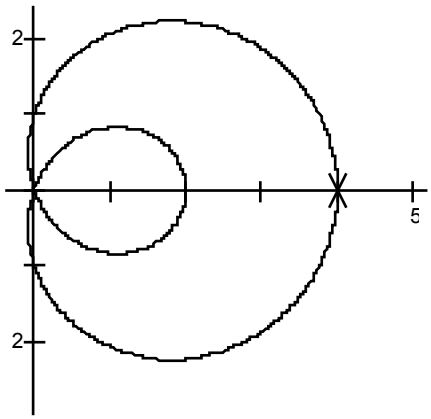
28.



29.



36.



37.