

10.3

$$(39) \quad r = -1 + \sin \theta \quad \theta = 0, \pi$$

$$x = r \cos \theta \quad y = r \sin \theta$$

$$x = (-1 + \sin \theta) \cos \theta \quad y = (-1 + \sin \theta) \sin \theta$$

$$x = -\cos \theta + \sin \theta \overset{f}{\cos} \theta \quad y = -\sin \theta + \sin^2 \theta$$

$$\frac{dy}{dx} = \frac{\frac{dy}{d\theta}}{\frac{dx}{d\theta}} = \frac{-\cos \theta + 2 \sin \theta \cos \theta}{\sin \theta + \cos^2 \theta - \sin^2 \theta}$$