$$\cos\theta = \frac{x}{a}$$

$$\sin\theta = \frac{y}{b}$$

$$\left(\frac{x}{a}\right)^2 + \left(\frac{y}{b}\right)^2 = 1$$

Reference:
Albert, C.D. and Rogers, F.S., *Kinematics of Machinery*, John Wiley & Sons, Inc., 1931.