

7 The parametric equations of a circle are

$$x = 7 + 5 \cos \theta, \quad y = 5 \sin \theta - 3, \quad \text{for } 0 \leq \theta \leq 2\pi.$$

(a) Find a cartesian equation of the circle. **[3]**

(b) State the coordinates of the centre of the circle. **[1]**