

- 9** A curve is such that  $\frac{dy}{dx} = 4 - x$  and the point  $P(2, 9)$  lies on the curve. The normal to the curve at  $P$  meets the curve again at  $Q$ . Find
- (i) the equation of the curve, [3]
  - (ii) the equation of the normal to the curve at  $P$ , [3]
  - (iii) the coordinates of  $Q$ . [3]