

- 9** The function  $f$  is defined for  $x > 0$  and is such that  $f'(x) = 2x - \frac{2}{x^2}$ . The curve  $y = f(x)$  passes through the point  $P(2, 6)$ .
- (i) Find the equation of the normal to the curve at  $P$ . [3]
- (ii) Find the equation of the curve. [4]
- (iii) Find the  $x$ -coordinate of the stationary point and state with a reason whether this point is a