9   A curve passes through the point A (4, 6) and is such that $\dfrac{\mathrm{d}y}{\mathrm{d}x} = 1 + 2x^{-\frac{1}{2}}$. A point P is moving along the curve in such a way that the x-coordinate of P is increasing at a constant rate of 3 units per minute.

    (i) Find the rate at which the y-coordinate of P is increasing when P is at A.   [3]

    (ii) Find the equation of the curve.   [3]

    (iii) The tangent to the curve at A crosses the x-axis at B and the normal to the curve at A crosses the x-axis at C. Find the area of triangle ABC.   [5]