6

- 5 The equation of a curve is such that  $\frac{dy}{dx} = 4x 3\sqrt{x} + 1$ .
  - (a) Find the x-coordinate of the point on the curve at which the gradient is  $\frac{11}{2}$ . [3]

(b) Given that the curve passes through the point (4, 11), find the equation of the curve. [4]