

**2** The equation of a curve is  $y = 4\sqrt{x} + \frac{2}{\sqrt{x}}$ .

**(i)** Obtain an expression for  $\frac{dy}{dx}$ . [3]

**(ii)** A point is moving along the curve in such a way that the  $x$ -coordinate is increasing at a constant rate of 0.12 units per second. Find the rate of change of the  $y$ -coordinate when  $x = 4$ . [2]