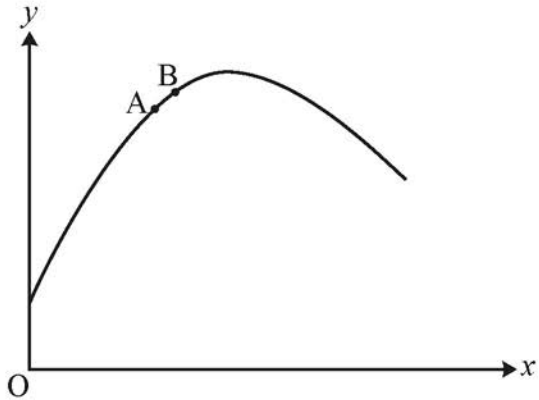
4 The diagram shows points A and B on the curve $y = \left(\frac{x}{4}\right)^{-x}$.

The x-coordinate of A is 1 and the x-coordinate of B is 1.1.



(a) Find the gradient of chord AB. Give your answer correct to **2** decimal places. **[2]**

(b) Give the x-coordinate of a point C on the curve such that the gradient of chord AC is a better approximation to the gradient of the tangent to the curve at A. **[1]**