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6 It is given that $\tan\theta = \frac{\sqrt{5}}{5}$ and $180° < \theta < 360°$.

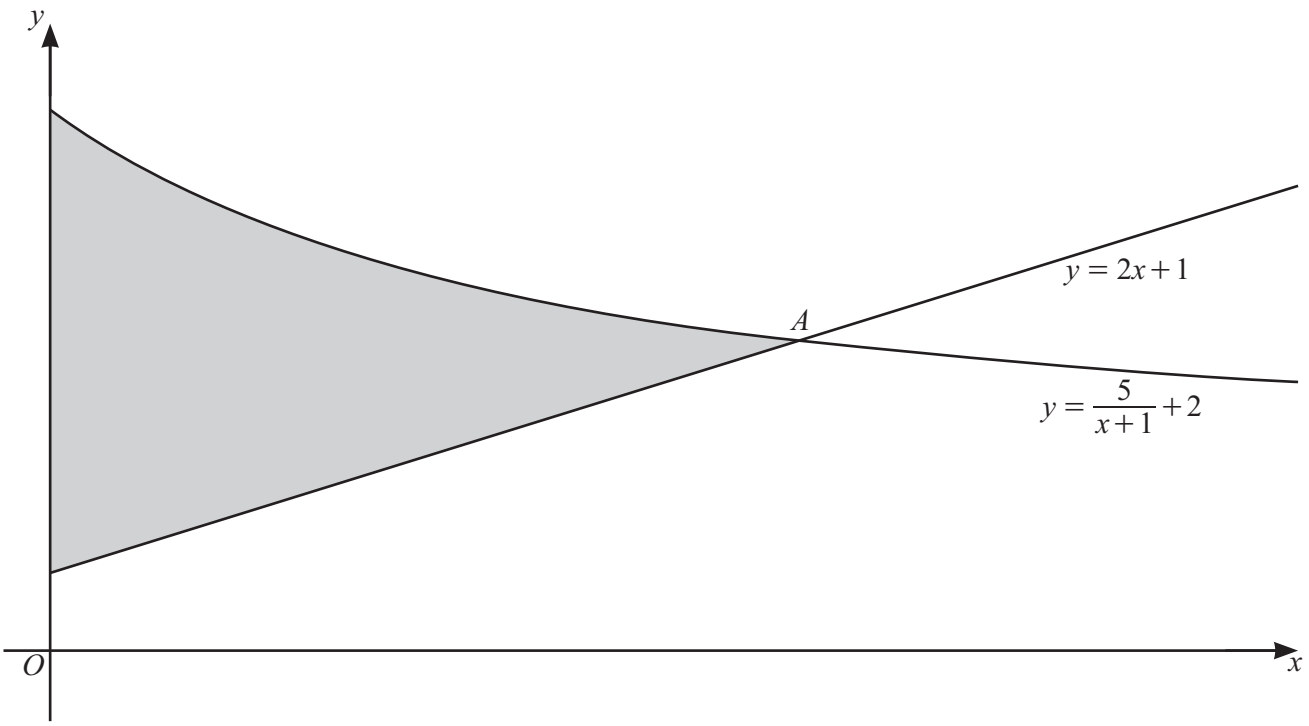
(a) Find the value of $\cos\theta$. [2]

(b) Find the value of $\sin\theta$. [1]

(c) Find the value of $\sec\theta + \cot\theta$.

Give your answer in the form $\frac{a + b\sqrt{c}}{\sqrt{5}}$, where a, b and c are integers. [2]

7



The diagram shows part of the curve $y = \frac{5}{x+1} + 2$ and part of the line $y = 2x + 1$ intersecting at the point A.

(a) Find the coordinates of A. [4]

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