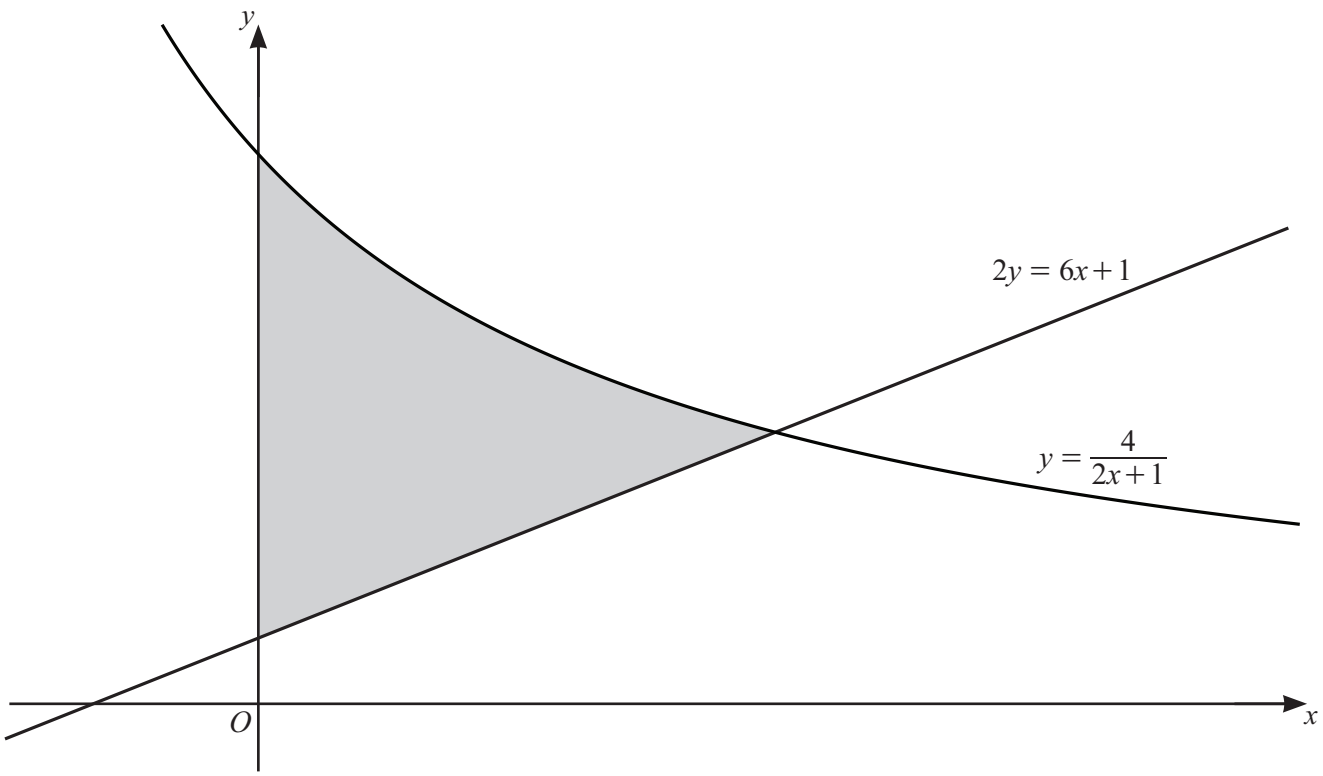
9



The diagram shows part of the curve $y = \frac{4}{2x+1}$ and the straight line $2y = 6x + 1$. Find the area of the shaded region, giving your answer in the form $\ln a + b$, where a is an integer and b is a rational number. [8]

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Continuation of working space for question 9.

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10 **(a)** The first 3 terms of an arithmetic progression are $2\tan 2x$, $5\tan 2x$, $8\tan 2x$. Find the values of x, where $-180° \leqslant x \leqslant 180°$, for which the sum to 30 terms is $455\sqrt{3}$. [5]

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