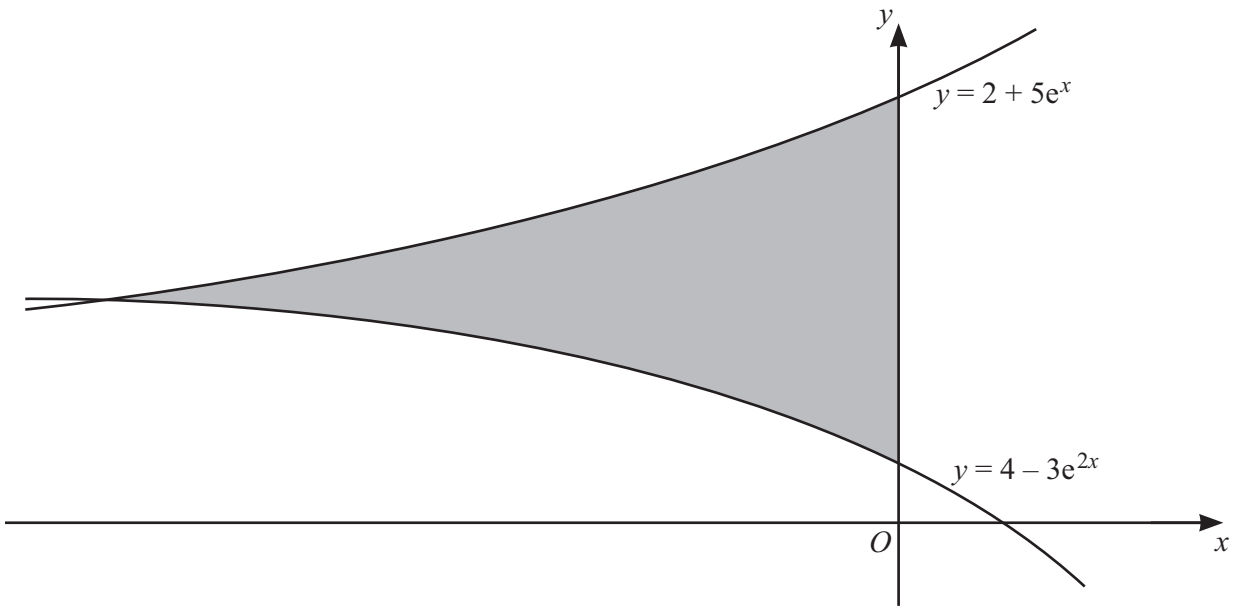
10



The diagram shows parts of the graphs of $y = 2 + 5e^x$ and $y = 4 - 3e^{2x}$.

Find the area of the shaded region.
Give your answer in the form $a + b \ln 3$, where a and b are exact constants. [10]

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Additional working space for Question 10.

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11 **(a)** Solve the equation $\tan^2 2x - 4\tan 2x = 0$ for $0° \leqslant x \leqslant 180°$. [4]

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