6 Find the exact area of the region enclosed by the curve $y = e^{2-4x}$, the x-axis, the line $x = -0.25$ and the line $x = 0.5$. [4]

7 **(a)** The curves $4x^2 - 3y^2 + xy = 24$ and $y = \frac{2}{x}$ intersect at the points P and Q. Find the coordinates of P and Q. [5]

(b) Find the length of PQ. Give your answer in the form $a\sqrt{b}$, where a is rational and b is the smallest possible integer. [2]

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