7 **(a)** Find $\int_2^4 (5x-2)^{-\frac{2}{3}}\,\mathrm{d}x$, giving your answer in exact form. [4]

(b) Find $\int_0^{\frac{1}{2}}\left(\frac{4}{2x+1}+\frac{8}{(2x+1)^2}\right)\mathrm{d}x$, giving your answer in the form $a+\ln b$, where a and b are integers. [5]

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