7 Giving your answer in its simplest form, find the exact value of

(a) $\int_0^4 \frac{10}{5x+2}\,\mathrm{d}x$, [4]

(b) $\int_0^{\ln 2} \left(\mathrm{e}^{4x+2}\right)^2 \mathrm{d}x$. [5]