10 **(a)** Given that $y = \dfrac{\sqrt{3x^2 - 2}}{x - 4}$, show that $\dfrac{\mathrm{d}y}{\mathrm{d}x}$ can be written in the form $\dfrac{Ax + B}{(x-4)^2\sqrt{3x^2 - 2}}$, where A and B are integers to be found. [5]

(b) Hence find, in terms of h, the approximate change in y when x increases from 3 to $3 + h$, where h is small. [3]

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