8 The first three terms, in descending powers of x, in the expansion of $\left(2x^2 - \frac{1}{4x}\right)^n$ can be written in the form $256x^{16} + ax^{13} + bx^c$, where n, a, b and c are integers. Find the values of n, a, b and c. [6]

9 Given that $y = \dfrac{(5x+2)^{\frac{1}{3}}}{(x-1)^2}$, show that $\dfrac{\mathrm{d}y}{\mathrm{d}x}$ can be written in the form $\dfrac{-(Ax+B)}{3(5x+2)^{\frac{2}{3}}(x-1)^3}$, where A and B are integers. [5]