4 **(a)** The first three terms, in ascending powers of x, in the expansion of $(3+px)^n$ are $243+810x+qx^2$, where n, p and q are constants. Find the values of n, p and q. [5]

(b) Find the term independent of y in the expansion of $\left(2y-\frac{1}{3y^2}\right)^6$. Give your answer in exact form. [2]

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