3 When $\ln(y+2)$ is plotted against x^2 a straight line graph is obtained. The line passes through the points $(2.25, 9.37)$ and $(4.75, 3.92)$. Find y in terms of x. [5]

4 **(a)** It is given that the first four terms, in ascending powers of x, in the expansion of $\left(1-\frac{x}{2}\right)^n$ can be written in the form $1-8x+px^2+qx^3$, where n, p and q are integers. Find the values of n, p and q. [5]

(b) Find the term independent of x in the expansion of $\left(\frac{2}{x^2}+\frac{x}{3}\right)^6$, giving your answer as a rational number. [2]

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