5 **(a)** **(i)** Write down, in ascending powers of x, the first three terms in the expansion of $(1+4x)^n$. Simplify each term. [2]

(ii) In the expansion of $(1+4x)^n(1-4x)$ the coefficient of x^2 is 6032. Given that $n > 0$, find the value of n. [3]

(b) Find the term independent of x in the expansion of $\left(\frac{x}{2}-\frac{8}{x^4}\right)^{10}$. [2]