**Finding Coefficients in Expansions**

(a) Find the coefficient of the $x^{2}$ term in the expansion of $(2+x)^{3}$

(b) Find the coefficient of the $x^{3}$ term in the expansion of $(1+2x)^{4}$

(c) Find the coefficient of the $x$ term in the expansion of $(2+3x)^{5}$

(d) Find the coefficient of the $x^{2}$ term in the expansion of $(1-3x)^{6}$

(a) Find the coefficient of the $x$ term in the expansion of $(4-3x)^{5}$

(b) Find the coefficient of the $x^{2}$ term in the expansion of $(x+5)^{6}$

(c) Find the coefficient of the $x^{3}$ term in the expansion of $(2x-1)^{4}$

(d) Find the coefficient of the $x^{2}$ term in the expansion of $(\sqrt{2}+x)^{5}$

(a) The coefficient of the $x^{5}$ term in the expansion of $(a+x)^{7}$ is $84$. Given that $a$ is positive, find its value.

(b) The coefficient of the $x^{3}$ term in the expansion of $(3-bx)^{5}$ is $-2430$. Find the value of $b$.

(a) In the expansion of $(2+ax)^{4}$ the coefficient of the $x^{2}$ term is three times the coefficient of the $x$ term. Find the value of $a$.

(b) In the expansion of $\left(\frac{x}{2}+b\right)^{5}$ the coefficient of the $x^{2}$ term is $72$ times the coefficient of the $x^{4}$ term. Find the two possible values of $b$.

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