7 The first three terms, in ascending powers of x, in the expansion of $(2+ax)^n$ can be written as $64+bx+cx^2$, where n, a, b and c are constants.

(a) Find the value of n. [1]

(b) Show that $5b^2 = 768c$. [4]

(c) Given that $b = 12$, find the exact value of a and of c. [2]