10 The expansion of $\left(a+\frac{x}{a}\right)^n$ in ascending powers of x begins $b^4 + 48b^3x$, where n, a and b are positive integers.

(a) Show that $a^{\frac{n}{2}-4} = \left(\frac{48}{n}\right)^2$. [4]

(b) Given also that the third term is $1056b^2x^2$, find the values of n, a and b. [6]

Question 11 is printed on the next page.