

4 (a) Write down the term in b^5 in the expansion of $(a + b)^{12}$. **[1]**

(b) A variable X has a binomial distribution such that $P(X = 5)$ is given by the term in part **(a)**.

(i) State a condition that must be satisfied by a and b . **[1]**

(ii) State the distribution of X . Give the values of any parameters. **[2]**