1. The probability distribution of a discrete random variable X is given by

$$P(X = x) = \begin{cases} \frac{1}{5} & x = 1,2,3,4,5 \\ 0 & \text{otherwise} \end{cases}$$

(a) Write down the value of $E(X)$

(1)

(b) Find the value of $E(X^2)$

(2)

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Question 1 continued

(Total for Question 1 is 3 marks)