

Edexcel (U.K.) Pre 2017

Questions By Topic

S2 Chap04 Continuous Uniform Distribution

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2. The continuous random variable X is uniformly distributed over the interval $[2, 6]$.

(a) Write down the probability density function $f(x)$.

(2)

Find

(b) $E(X)$,

(1)

(c) $\text{Var}(X)$,

(2)

(d) the cumulative distribution function of X , for all x ,

(4)

(e) $P(2.3 < X < 3.4)$.

(2)

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1. A string AB of length 5cm is cut, in a random place C , into two pieces. The random variable X is the length of AC .
- (a) Write down the name of the probability distribution of X and sketch the graph of its probability density function. (3)
- (b) Find the values of $E(X)$ and $\text{Var}(X)$. (3)
- (c) Find $P(X > 3)$. (1)
- (d) Write down the probability that AC is 3cm long. (1)

