Started on	Monday, 21 October 2024, 4:58 PM
State	Finished
Completed on	Monday, 21 October 2024, 4:58 PM
Time taken	14 secs
Marks	0.00/5.00
Grade	**0.00** out of 10.00 (**0**%)

Question 1

Not answered

Marked out of 1.00

A stick of length 10 meters is randomly broken into two parts. Find the cumulative distribution function (cdf) and the probability density function (pdf) of the length of the shorter part.

Cumulative distribution function: $F(x) =$ </td> <td> , **if x<0,**

, if 0<x<5,

, if x>5.

Probability density function.: $f(x) =$ </td><td> , if 0<x<5,

, otherwise.

Question 2

Not answered

Marked out of 1.00

Find the CDF of the distance of two randomly chosen points of the [0,3] interval.

$F(x) =$ </td> <td> , **if x<0,**

, if 0<x<3,

, if x>3.

Question 3

Not answered

Marked out of 3.00

The PDF of a random variable ξ is

$$f(x) = \begin{cases} 0, & \text{if } x < 3 \\ \frac{A}{(4+x)^2}, & \text{if } x \geq 3 \end{cases}$$

a.)

What is the value of A?

b.)

What is the value of $P(3 < \xi < 14)$?

c.)

CDF: $F(x) =$ **, if x<3,**

</td><td>, if x>3,

◄ Homework 6

Jump to...

Homework 8 ►