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Unit overview

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Problem 3: The PDF of the maximum

(3/3 points)

Let X and Y be independent random variables, each uniformly distributed on the interval $[0, 1]$.

1. Let $Z = \max\{X, Y\}$. Find the PDF of Z . Express your answer in terms of z using standard notation .

For $0 < z < 1$, $f_Z(z) =$ 

2. Let $Z = \max\{2X, Y\}$. Find the PDF of Z . Express your answer in terms of z using standard notation .

For $0 < z < 1$, $f_Z(z) =$ For $1 < z < 2$, $f_Z(z) =$ 

You have used 2 of 2 submissions

DISCUSSION

Click "Show Discussion" below to see discussions on this problem.

Lec. 12: Sums of independent r.v.'s; Covariance and correlation

Exercises 12 due Mar 30, 2016 at 23:59 UTC

Lec. 13: Conditional expectation and variance revisited; Sum of a random number of independent r.v.'s

Exercises 13 due Mar 30, 2016 at 23:59 UTC

Solved problems

Additional theoretical material

Problem Set 6

Problem Set 6 due Mar 30, 2016 at 23:59 UTC

Unit summary

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