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8. Exercise: LMS example
Exercise: LMS example

1/1 point (graded)

The random variables Θ and X are described by a joint PDF which is uniform on the triangular set defined by the constraints $0 \leq x \leq 1$, $0 \leq \theta \leq x$. Find the LMS estimate of Θ given that $X = x$, for x in the range $[0, 1]$. Express your answer in terms of x using standard notation.

| 1/2*x |

✔ **Answer:** x/2

STANDARD NOTATION

Solution:

The conditional PDF of Θ given that $X = x$ is uniform on the set $[0, x]$. Thus, the conditional expectation of Θ given that $X = x$ is equal to $x/2$.

| 提交 | You have used 1 of 3 attempts |

ℹ Answers are displayed within the problem

讨论

| 显示讨论 |

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