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Unit overview

Lec. 8: Probability density functions
Exercises 8 due Mar 16, 2016 at 23:59 UT

Lec. 9: Conditioning on an event; Multiple r.v.'s
Exercises 9 due Mar 16, 2016 at 23:59 UT

Bookmark

Problem 1: Normal random variables

(5/5 points)

Let X and Y be normal random variables with means 0 and 2, respectively, and variances 1 and 9, respectively. Find the following, using the standard normal table . Express your answers to an accuracy of 4 decimal places.

1. $\mathbf{P}(X > 0.75) =$ 0.2266274 ✔

2. $\mathbf{P}(X \leq -1.25) =$ 0.1056498 ✔

3. Let $Z = (Y - 3)/4$. Find the mean and the variance of Z.

$\mathbf{E}[Z] =$ -1/4 ✔

$\mathbf{var}(Z) =$ 9/16 ✔

4. $\mathbf{P}(-1 \leq Y \leq 2) =$ 0.3413447 ✔

You have used 1 of 2 submissions

Printable problem set available here .

DISCUSSION

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