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▾ **Module 2: Fundamentals of Probability, Random Variables, Distributions, and Joint Distributions**

Fundamentals of Probability
Finger Exercises due Oct 10, 2016 at 05:00 IST

Random Variables, Distributions, and Joint Distributions
Finger Exercises due Oct 10, 2016 at 05:00 IST

Module 2: Homework
Homework due Oct 03, 2016 at 05:00 IST

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Question 1

(1/1 point)

In the example given in class, Sara aims to calculate the probability that her headache will return if she takes a tablet of naproxen (which has an effective period of X) and a tablet of acetaminophen (which has an effective period of Y). In order to get the joint probability that her headache returns within three hours, the process is to take the _____ of _____ over the regions _____.

○ a. Derivative ; joint probability distribution ; x between 0 and 1 and y between 0 and 1

○ b. Partial derivative ; marginal probability distribution ; x between 0 and 3, and y between 0 and (x-3)

◉ c. Double integral; joint probability distribution ; x between 0 and 3 and y between 0 and 3 ✔

○ d. Double integral; marginal probability distribution ; x between 0 and 3 or y between 0 and 3

▸ Exit Survey

EXPLANATION

In the example given in class, we want to calculate the probability that x is less than 3 and y is less than three. We know that to calculate the joint probability for two variables we take the double integral of the joint probability distribution for the region where x is less than 3 hours **AND** y is less than three hours.

You have used 1 of 2 submissions

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